# 3. [Multiplication / Division]

- Find identical groups.
- Count the number of identical groups.

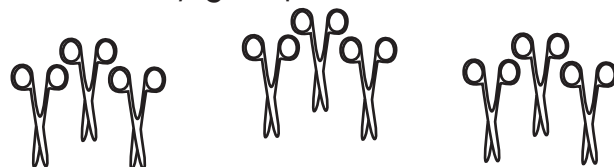**Q.** How many groups of 3 snails?     **A.** *5*
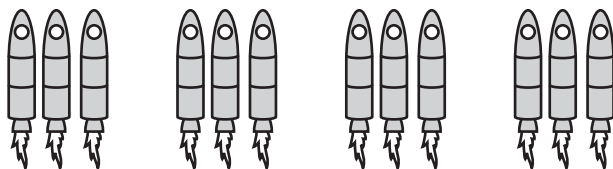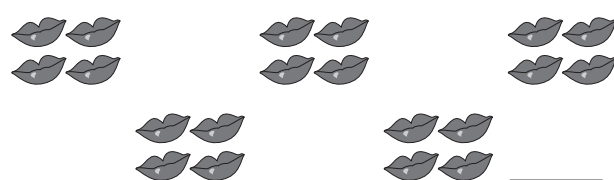
**a)** How many groups of 4 balls?

4

**b)** How many groups of 3 scissors?

**c)** How many groups of 3 rockets?

**d)** How many groups of 4 mouths?

**e)** How many groups of 6 stars?

**f)** How many groups of 3 bugs?

**g)** How many groups of 3 birds?
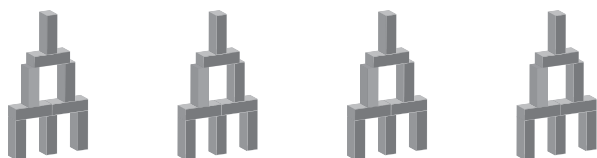
**h)** How many groups of 5 chickens?

**Skill 3.2**    Counting equal groups and objects in a group (1).

MM2.2 1 **1** 22 33 44
MM3.1 11 22 33 44

- Count the number of groups.
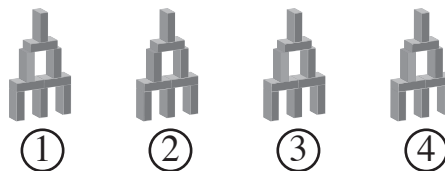- Count the number of objects in each group.

---

**Q.** Fill in the gaps.



☐ groups of ☐ blocks =

☐ blocks

**A.** *4 groups of 9 blocks =*
= *36 blocks*



① ② ③ ④

There are 4 groups.
Each group has 9 blocks.

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**a)** Fill in the gaps.



3 groups of 8 slices =

24 slices

**b)** Fill in the gaps.
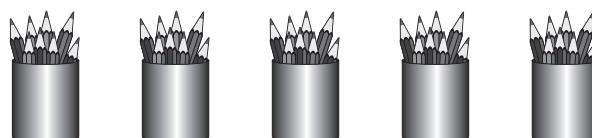


☐ groups of ☐ pencils =

☐ pencils

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**c)** Fill in the gaps.
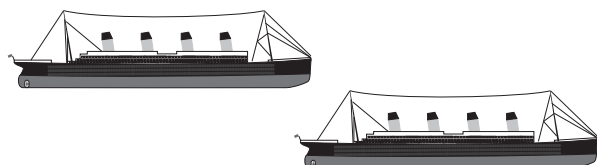


☐ groups of ☐ stacks =

☐ stacks

**d)** Fill in the gaps.
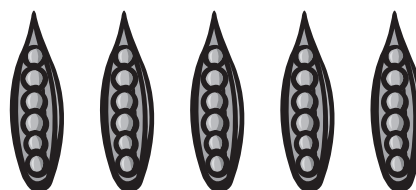


☐ groups of ☐ peas =

☐ peas

---

**e)** Fill in the gaps.



☐ groups of ☐ sails =

☐ sails

**f)** Fill in the gaps.



☐ groups of ☐ toes =

☐ toes

---

**Skill 3.2**     Counting equal groups and objects in a group (2).

MM2.2 1 **1** 2 2 3 3 4 4
MM3.1 1 1 2 2 3 3 4 4

**g)** Fill in the gaps.

☐ groups of ☐ blades =

☐ blades

**h)** Fill in the gaps.

☐ groups of ☐ lenses =

☐ lenses

**i)** Fill in the gaps.

☐ groups of ☐ paints =

☐ paints

**j)** Fill in the gaps.
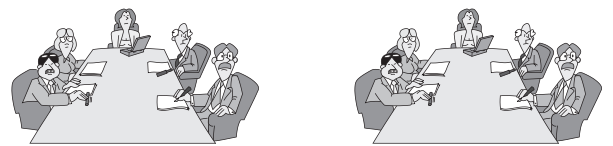
☐ groups of ☐ people =

☐ people

**k)** Fill in the gaps.
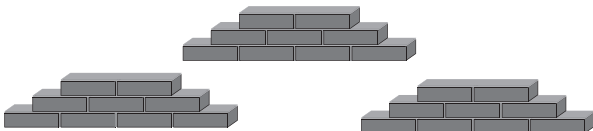
☐ groups of ☐ bricks =

☐ bricks

**l)** Fill in the gaps.

☐ groups of ☐ books =

☐ books

**m)** Fill in the gaps.
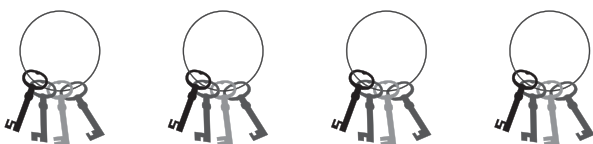
☐ groups of ☐ keys =

☐ keys

**n)** Fill in the gaps.
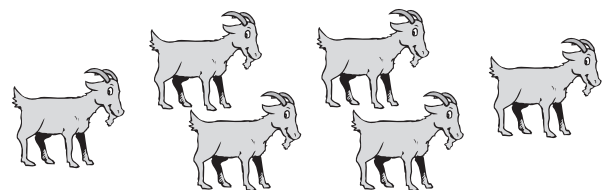
☐ groups of ☐ legs =

☐ legs

**Skill 3.3**      Multiplying the numbers from 1 to 10 by using arrays (1).

MM2.2  1 1 **2** 2 3 3 **4** 4
MM3.1  **1** 1  2 2 **3** 3 4 4

- Count the total number of shapes in the array.

OR

- Use counting by the number of rows or by the number of columns.

**Q.** Complete the multiplication.

3 rows of 8 =

☐ × ☐ = ☐

**A.** $3 \times 8 = 24$

3 rows of 8 = $3 \times 8 = 24$ or
8 columns of 3 = $8 \times 3 = 24$
OR
Count by 3s eight times:
$\underbrace{3, 6, 9, 12, 15, 18, 21, 24}_{\text{8 times}}$

**a)** Complete the multiplication.

2 rows of 3 =
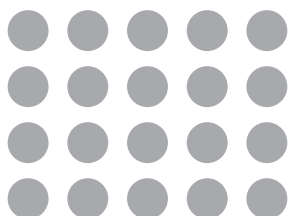
$2 \times 3 = \boxed{6}$

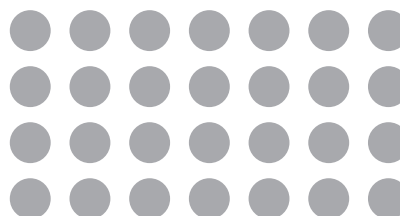**b)** Complete the multiplication.

3 rows of 6 =

$3 \times 6 = \boxed{\phantom{0}}$

**c)** Complete the multiplication.

4 rows of 5 =

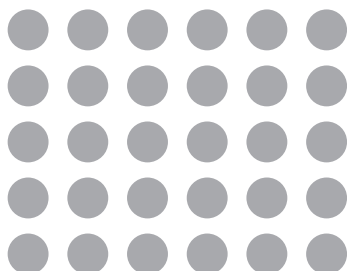$4 \times 5 = \boxed{\phantom{0}}$

**d)** Complete the multiplication.
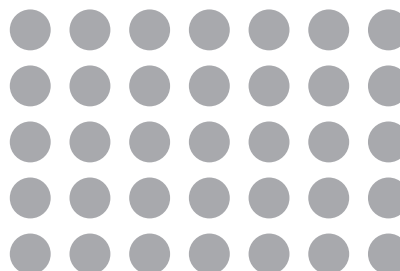
4 rows of 7 =

$4 \times 7 = \boxed{\phantom{0}}$

**e)** Complete the multiplication.

5 rows of 6 =

☐ × ☐ = ☐

**f)** Complete the multiplication.

5 rows of 7 =

☐ × ☐ = ☐

**Skill 3.3**     Multiplying the numbers from 1 to 10 by using arrays (2).

MM2.2  11 **2** 2 33 **4** 4
MM3.1  **1** 1 2 2 **3** 3 44

**g)**  Complete the multiplication.

2 rows of 5 =

☐ × ☐ = ☐

**h)**  Complete the multiplication.

3 rows of 7 =

☐ × ☐ = ☐

**i)**  Complete the multiplication.

3 rows of 9 =

☐ × ☐ = ☐

**j)**  Complete the multiplication.
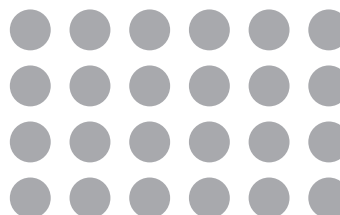
4 rows of 6 =

☐ × ☐ = ☐

**k)**  Complete the multiplication.

3 rows of 4 =

☐ × ☐ = ☐

**l)**  Complete the multiplication.
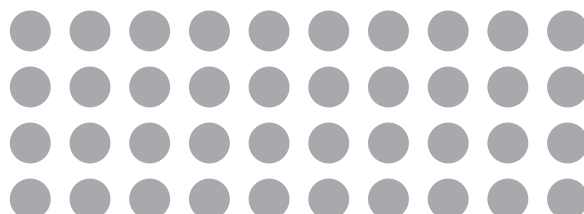
4 rows of 10 =

☐ × ☐ = ☐

**m)**  Complete the multiplication.

2 rows of 6 =

☐ × ☐ = ☐

**n)**  Complete the multiplication.
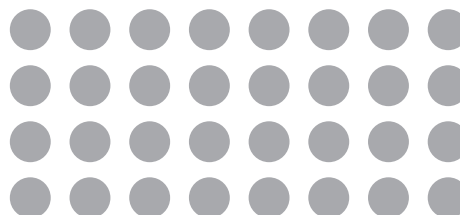
4 rows of 8 =

☐ × ☐ = ☐

**Skill 3.3**   Multiplying the numbers from 1 to 10 by using arrays (3).

MM2.2  1 1 **2** 2 3 3 **4** 4
MM3.1  **1** 1 2 2 **3** 3 4 4

**o)** Complete the multiplication.

$4 \times 4 = \boxed{\phantom{0}}$
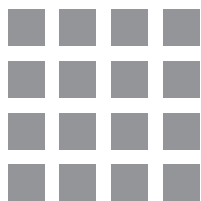
**p)** Complete the multiplication.

$4 \times 5 = \boxed{\phantom{0}}$

**q)** Complete the multiplication.
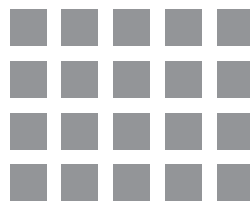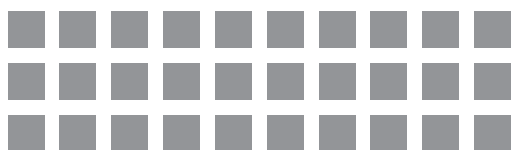
$3 \times 10 = \boxed{\phantom{0}}$

**r)** Complete the multiplication.

$2 \times 9 = \boxed{\phantom{0}}$

**s)** Complete the multiplication.
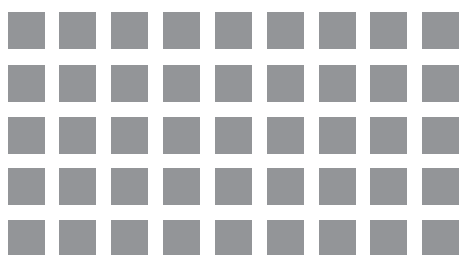
$5 \times 9 = \boxed{\phantom{0}}$

**t)** Complete the multiplication.
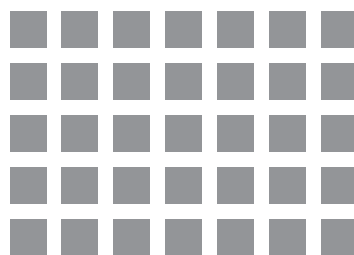
$5 \times \boxed{\phantom{0}} = \boxed{\phantom{0}}$

**u)** Complete the multiplication.

$\boxed{\phantom{0}} \times 3 = \boxed{\phantom{0}}$

**v)** Complete the multiplication.

$2 \times \boxed{\phantom{0}} = \boxed{\phantom{0}}$

**w)** Complete the multiplication.

$\boxed{\phantom{0}} \times 7 = \boxed{\phantom{0}}$

**x)** Complete the multiplication.

$\boxed{\phantom{0}} \times 10 = \boxed{\phantom{0}}$

**y)** Complete the multiplication.
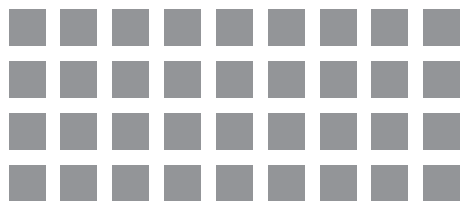


☐ × 9 = ☐

**z)** Complete the multiplication.
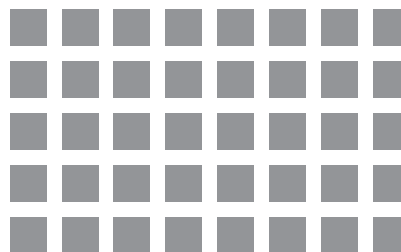


5 × ☐ = ☐

**A)** Complete the multiplication.



6 × ☐ = ☐
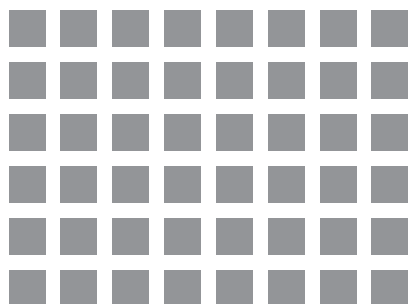
**B)** Complete the multiplication.
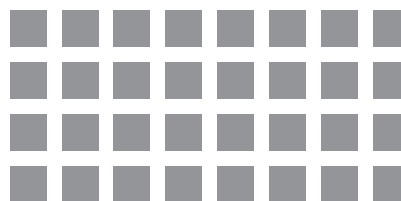


☐ × 8 = ☐

**C)** Complete the multiplication.
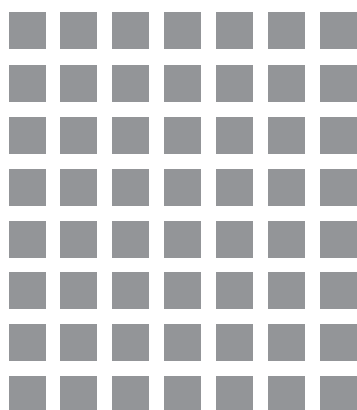


8 × ☐ = ☐

**D)** Complete the multiplication.
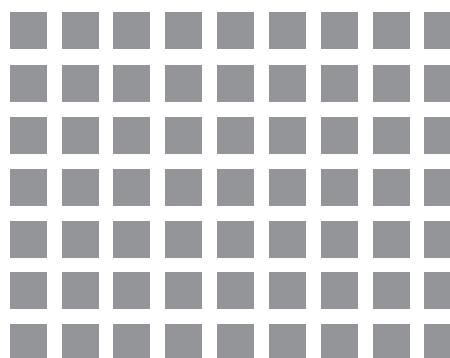


☐ × 9 = ☐

**E)** Complete the multiplication.



☐ × 10 = ☐
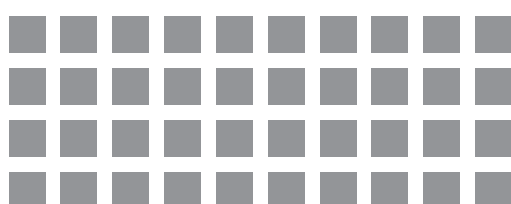
**F)** Complete the multiplication.



5 × ☐ = ☐

Skill 3.4   Multiplying the numbers from 1 to 10 by using repetitive addition (1).

MM2.2  1 1  2 2  3 3  4 4
MM3.1  1 1  2 2  3 3  4 4

**Repetitive addition**
- Add the numbers in the repetitive addition.

**Multiplication**
- Count the number of objects.
- Add the number of parts of each object, the number of times needed.

*Hint:   Multiplication is a shortcut to repetitive addition.*

**Q.**

$4 + 4 + 4 + 4 + 4 + 4 =$ ☐

$6 \times 4 =$ ☐
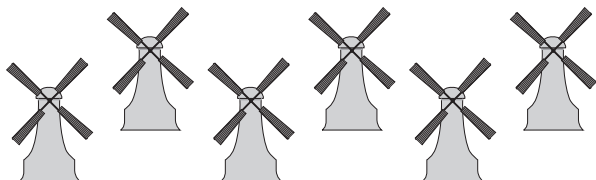
**A.** $4 + 4 + 4 + 4 + 4 + 4 = \mathbf{24}$
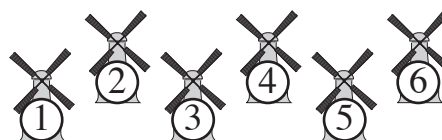
$6 \times 4 = \mathbf{24}$

$\underbrace{4 + 4 + 4 + 4 + 4 + 4}_{6 \text{ times}}$

$= 6 \times 4 = 24$

**a)**
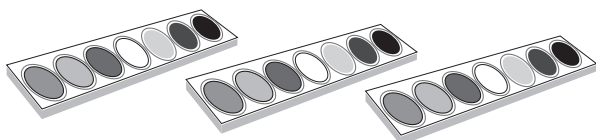
$7 + 7 + 7 = \boxed{21}$

$3 \times 7 = \boxed{21}$

**b)**

$6 + 6 + 6 + 6 + 6 + 6 =$ ☐
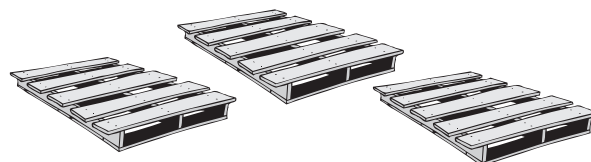
$6 \times 6 =$ ☐

**c)**

$9 + 9 =$ ☐

$2 \times 9 =$ ☐

**d)**

$5 + 5 + 5 =$ ☐

$3 \times 5 =$ ☐

**e)**

$6 + 6 + 6 + 6 + 6 =$ ☐

$5 \times 6 =$ ☐

**f)**

$8 + 8 =$ ☐

$2 \times 8 =$ ☐

**Skill 3**.4    Multiplying the numbers from 1 to 10 by using repetitive addition (2).

MM2.2 1 1 2 **2** 3 3 4 4
MM3.1 1 **1** 2 2 3 3 4 4
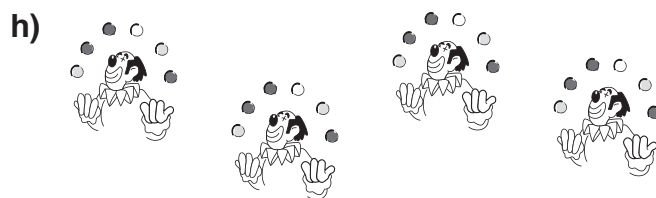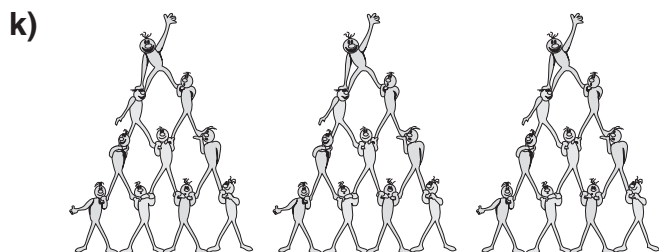
**g)**

$3 + 3 + 3 + 3 + 3 + 3 + 3 =$ ☐

$7 \times 3 =$ ☐

**h)**

$6 + 6 + 6 + 6 =$ ☐

$4 \times 6 =$ ☐

**i)**

$6 + 6 + 6 =$ ☐

$3 \times 6 =$ ☐

**j)**

$7 + 7 =$ ☐

$2 \times 7 =$ ☐

**k)**

$10 + 10 + 10 =$ ☐

$3 \times 10 =$ ☐

**l)**

$3 + 3 + 3 =$ ☐

$3 \times 3 =$ ☐

**m)**

$5 + 5 + 5 + 5 =$ ☐

$4 \times 5 =$ ☐

**n)**

$4 + 4 =$ ☐
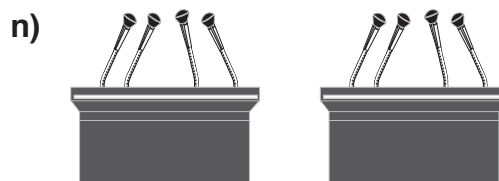
$2 \times 4 =$ ☐

- Draw the same number of objects next to the given objects.
- Count the total number of objects.

OR

- Add the number to itself.

---

**Q.** Double this number of triangles by first drawing them.

$2 \times 4 = \boxed{\phantom{0}}$

**A.** **8**

4 doubled = 8
OR
$2 \times 4$
$= 4 + 4$
$= 8$

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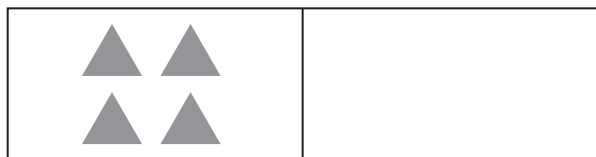
**a)** Double this number of stars by first drawing them.
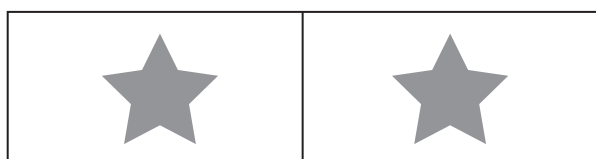
$2 \times 1 = \boxed{2}$

**b)** Double this number of hexagons by first drawing them.
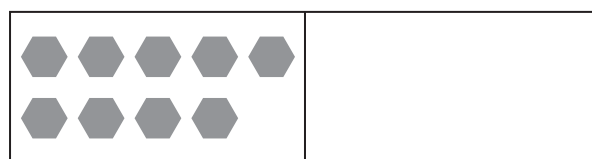
$2 \times 9 = \boxed{\phantom{0}}$

**c)** Double this number of trapeziums by first drawing them.
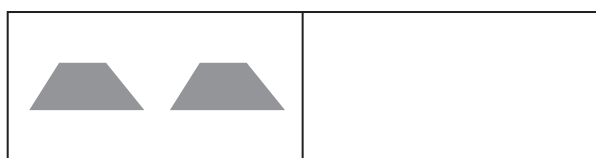
$\boxed{\phantom{0}} \times \boxed{\phantom{0}} = \boxed{\phantom{0}}$

**d)** Double this number of pentagons by first drawing them.
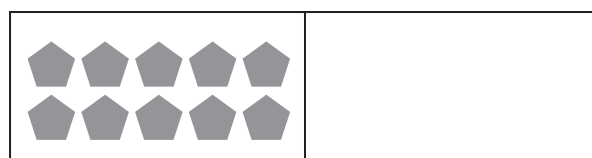
$\boxed{\phantom{0}} \times \boxed{\phantom{0}} = \boxed{\phantom{0}}$

**e)** Double 7.

$2 \times 7 = \boxed{\phantom{0}}$

**f)** Double 8.

$2 \times 8 = \boxed{\phantom{0}}$

**g)** Double 6.

$\boxed{\phantom{0}} \times \boxed{\phantom{0}} = \boxed{\phantom{0}}$

**h)** Double 3.

$\boxed{\phantom{0}} \times \boxed{\phantom{0}} = \boxed{\phantom{0}}$

**i)** Double 10.

$\boxed{\phantom{0}} \times \boxed{\phantom{0}} = \boxed{\phantom{0}}$

**j)** Double 12.

$\boxed{\phantom{0}} \times \boxed{\phantom{0}} = \boxed{\phantom{0}}$

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**Skill** 3.6    Multiplying by 10 and 100 by using base 10 blocks (1).

MM2.2 11 22 **3** 3 44
MM3.1 11 **2** 2 33 44

**By 10**
- Count by 10s using base 10 blocks (1 × 10).

OR
- Add a zero to the end of the number that is being multiplied by 10.

**By 100**
- Count by 100s using base 10 blocks (1 × 100).

OR
- Add two zeros to the end of the number that is being multiplied by 100.

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**Q.** Complete the multiplication.
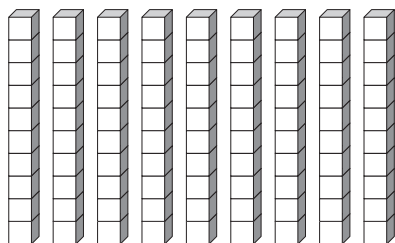


$9 \times 10 =$ ☐

**A.** *90*

Count by 10s nine times:
10, 20, 30, 40, 50, 60, 70, 80, 90
OR
$9 \times 10$
$= 90$  *add a zero to the 9*

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**a)** Complete the multiplication.
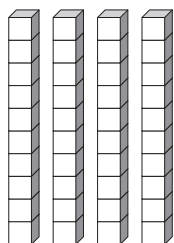


4 lots of 10 = $\boxed{40}$

**b)** Complete the multiplication.
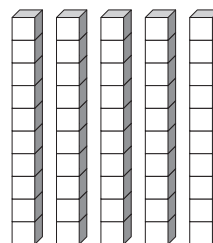


5 lots of 10 = ☐

**c)** Complete the multiplication.
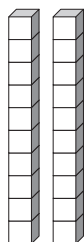


2 lots of 10 = ☐
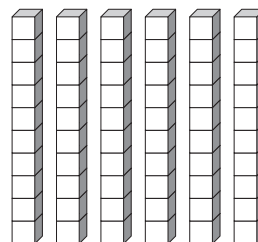
**d)** Complete the multiplication.



6 lots of 10 = ☐

**e)** Complete the multiplication.



$8 \times 10 =$ ☐

**f)** Complete the multiplication.



$10 \times 10 =$ ☐

**Skill 3.6**     Multiplying by 10 and 100 by using base 10 blocks (2).

MM2.2  11 22 **3** 3 44
MM3.1  11 **2** 2 33 44
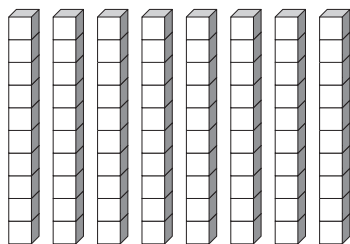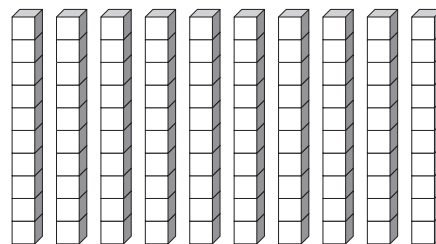
**g)**  Complete the multiplication.

$7 \times 10 =$ ☐

**h)**  Complete the multiplication.

$3 \times 10 =$ ☐

**i)**  Complete the multiplication.

$8 \times 10 =$ ☐
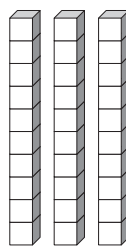
**j)**  Complete the multiplication.

$11 \times 10 =$ ☐

**k)**  Complete the multiplication.

$25 \times 10 =$ ☐

**l)**  Complete the multiplication.

$33 \times 10 =$ ☐

**m)**  Complete the multiplication.
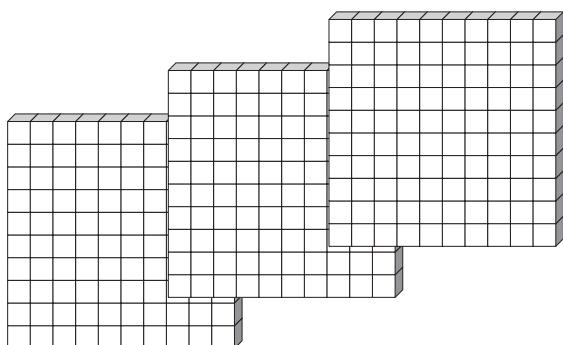
$3 \times 100 =$ ☐

**n)**  Complete the multiplication.
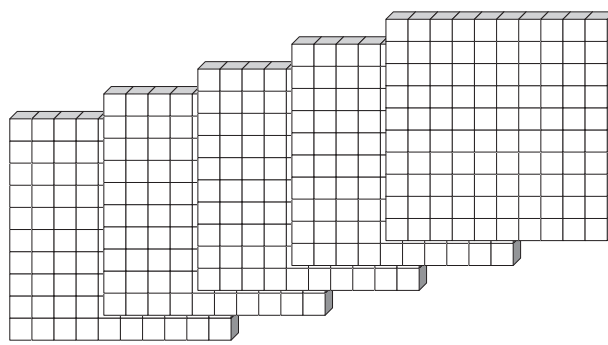
$5 \times 100 =$ ☐

**o)**  Complete the multiplication.
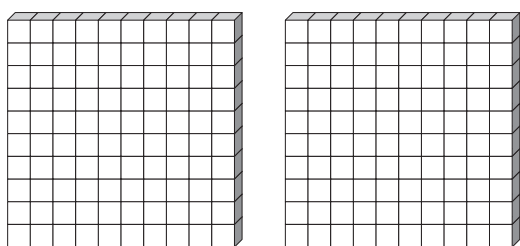
$2 \times 100 =$ ☐

**p)**  Complete the multiplication.

$6 \times 100 =$ ☐

**q)**  Complete the multiplication.

$9 \times 100 =$ ☐

**r)**  Complete the multiplication.

$12 \times 100 =$ ☐

# Skill 3.7    Multiplying the numbers from 1 to 10 by using multiplication tables (1).

- Follow the shaded lines from the numbers to be multiplied, moving down and across.
- Read the number where the shaded lines meet.

**Q.** Complete the multiplication.

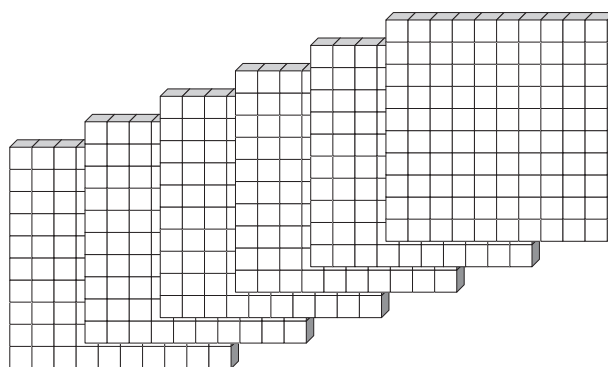| × | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

$6 \times 10 = \boxed{\phantom{0}}$

**A.** **60**

| × | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

**a)** Complete the multiplication.

| × | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

$5 \times 8 = \boxed{40}$

**b)** Complete the multiplication.

| × | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

$2 \times 9 = \boxed{\phantom{0}}$

**c)** Complete the multiplication.

| × | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

$4 \times 6 = \boxed{\phantom{0}}$

**d)** Complete the multiplication.

| × | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

$6 \times 9 = \boxed{\phantom{0}}$

**e)** Complete the multiplication.

| × | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

$8 \times 4 = \boxed{\phantom{0}}$

**f)** Complete the multiplication.

| × | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

$7 \times 7 = \boxed{\phantom{0}}$

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## Skill 3.7   Multiplying the numbers from 1 to 10 by using multiplication tables (2).

**g)**  Complete the multiplication.

| × | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

$5 \times 6 = \boxed{\phantom{00}}$

**h)**  Complete the multiplication.

| × | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

$5 \times 9 = \boxed{\phantom{00}}$

**i)**  Complete the multiplication.

| × | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

$3 \times 7 = \boxed{\phantom{00}}$

**j)**  Complete the multiplication.

| × | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

$9 \times 3 = \boxed{\phantom{00}}$

**k)**  Complete the multiplication.

| × | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

$6 \times 7 = \boxed{\phantom{00}}$

**l)**  Complete the multiplication.

| × | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

$8 \times 8 = \boxed{\phantom{00}}$

**m)**  Complete the multiplication.

| × | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

$9 \times 8 = \boxed{\phantom{00}}$

**n)**  Complete the multiplication.

| × | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| 4 | 4 | 8 | 12 | 16 | 20 | 24 | 28 | 32 | 36 | 40 |
| 5 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| 6 | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 |
| 7 | 7 | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 |
| 8 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| 9 | 9 | 18 | 27 | 36 | 45 | 54 | 63 | 72 | 81 | 90 |
| 10 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |

$3 \times 10 = \boxed{\phantom{00}}$

**Skill 3.8**    Modelling the commutative property for multiplication by using arrays.

- Count the number of rows and the number of columns on both sides of the table.
  *Hint: When multiplying two numbers, the order of the numbers can be reversed.*

**Q.**
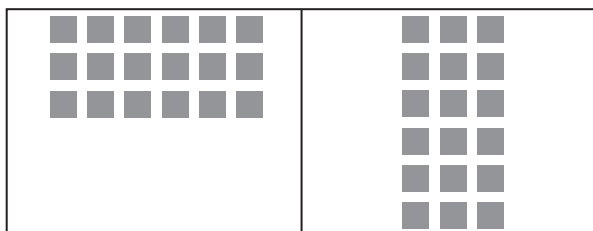


**A.** $3 \times \mathbf{6} = 6 \times 3$

3 rows, 6 columns      $\Rightarrow 3 \times 6 = 18$
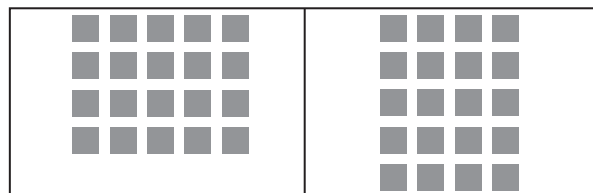6 rows, 3 columns      $\Rightarrow 6 \times 3 = 18$
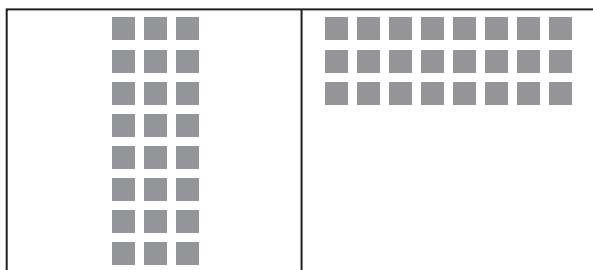Equal number in array   $\Rightarrow$ same result

$3 \times \boxed{\phantom{6}} = 6 \times 3$

**a)**



$2 \times \boxed{4} = 4 \times 2$

**b)**



$4 \times 5 = \boxed{\phantom{0}} \times 4$

**c)**



$8 \times \boxed{\phantom{0}} = 3 \times 8$

**d)**



$4 \times 7 = \boxed{\phantom{0}} \times 4$

**e)**



$4 \times \boxed{\phantom{0}} = 6 \times 4$

**f)**



$\boxed{\phantom{0}} \times 2 = 2 \times \boxed{\phantom{0}}$

**g)**



$4 \times \boxed{\phantom{0}} = \boxed{\phantom{0}} \times 4$

**h)**
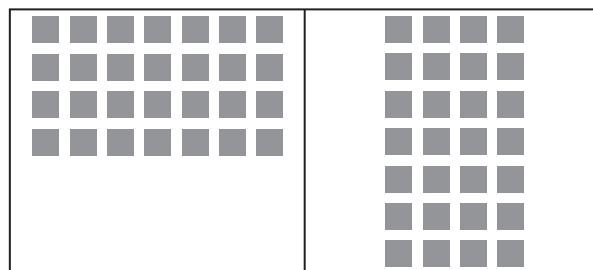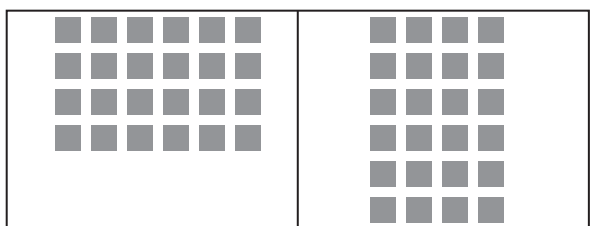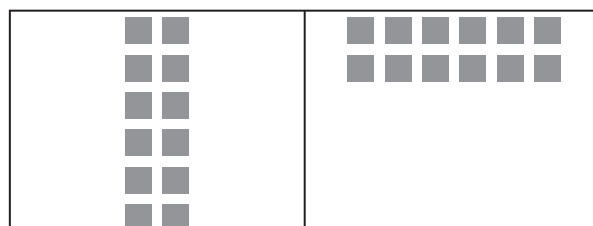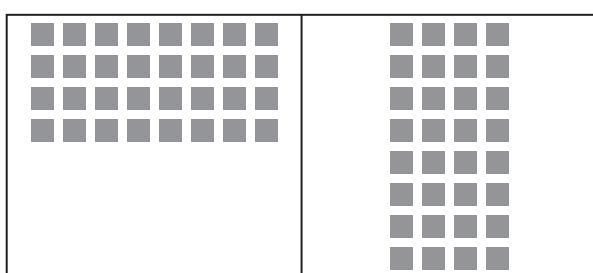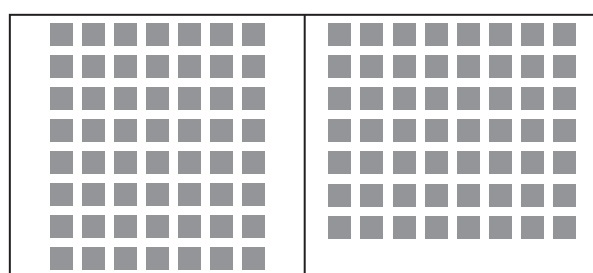


$\boxed{\phantom{0}} \times 7 = 7 \times \boxed{\phantom{0}}$

**Skill 3.9**   Modelling multiplication of numbers greater than 12 by a single digit, by using base 10 blocks.

- Find the total number of tens by counting the base 10 blocks (1 × 10).
- Find the total number of units by counting the base 10 blocks (1 × 1).
- Add the results to complete the multiplication of the number greater than 12.

**Q.**
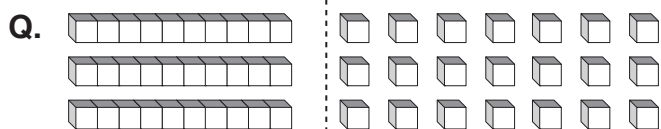
$3 \times 10 = \boxed{\phantom{00}}$   $3 \times 7 = \boxed{\phantom{00}}$

$3 \times 17 = \boxed{\phantom{00}}$

**A.**   $3 \times 10 = \mathbf{30}$
$3 \times 7 = \mathbf{21}$
$30 + 21 = 51$
$3 \times 17 = \mathbf{51}$

**a)**

$4 \times 20 = \boxed{\phantom{00}}$   $4 \times 2 = \boxed{\phantom{00}}$

$4 \times 22 = \boxed{\phantom{00}}$

**b)**

$5 \times 20 = \boxed{\phantom{00}}$   $5 \times 2 = \boxed{\phantom{00}}$

$5 \times 22 = \boxed{\phantom{00}}$

**c)**

$3 \times 10 = \boxed{\phantom{00}}$   $3 \times 4 = \boxed{\phantom{00}}$

$3 \times 14 = \boxed{\phantom{00}}$

**d)**

$4 \times 10 = \boxed{\phantom{00}}$   $4 \times 7 = \boxed{\phantom{00}}$

$4 \times 17 = \boxed{\phantom{00}}$

**e)**

$3 \times 10 = \boxed{\phantom{00}}$   $3 \times 5 = \boxed{\phantom{00}}$

$3 \times 15 = \boxed{\phantom{00}}$

**f)**
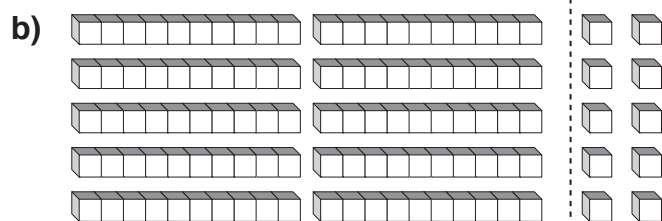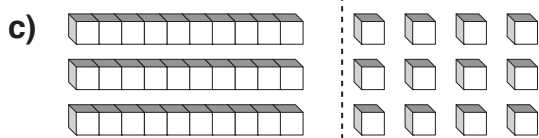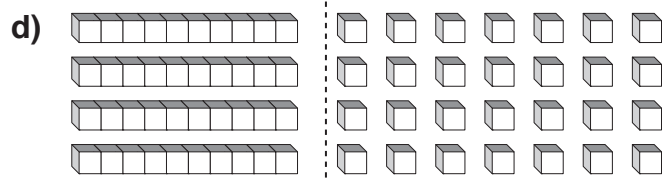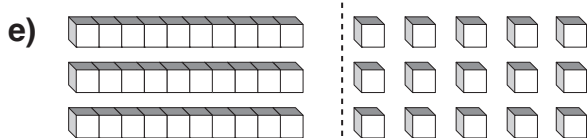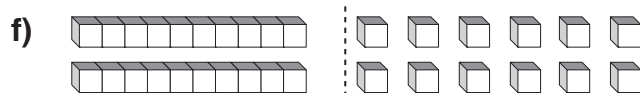
$2 \times 10 = \boxed{\phantom{00}}$   $2 \times 6 = \boxed{\phantom{00}}$

$2 \times 16 = \boxed{\phantom{00}}$

• Try different ways to arrange the objects into equal groups.
• Count the number of objects in each group.

**Q.** Circle to divide 8 pipes into 2 equal groups. How many in each group?

**A.** *4*

Group 1    Group 2
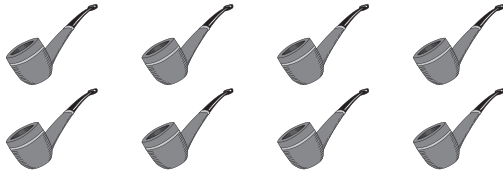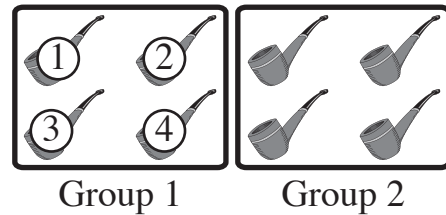
**a)** Circle to divide 15 candles into 5 equal groups. How many in each group?
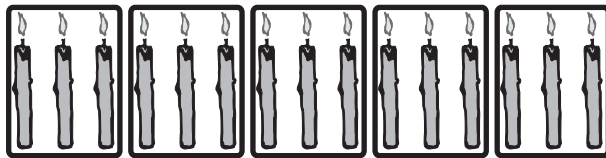
3

**b)** Circle to divide 12 crowns into 2 equal groups. How many in each group?

**c)** Circle to divide 9 books into 3 equal groups. How many in each group?
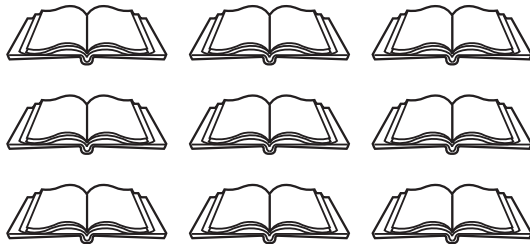
**d)** Circle to divide 16 clubs into 4 equal groups. How many in each group?
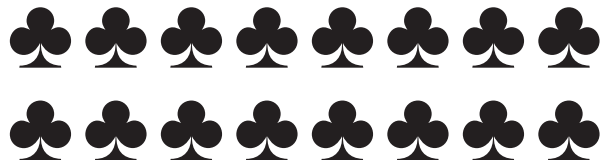
**e)** Circle to divide 18 butterflies into 3 equal groups. How many in each group?
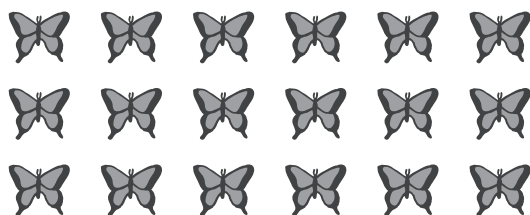
**f)** Circle to divide 14 leaves into 2 equal groups. How many in each group?
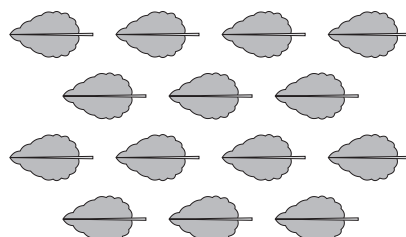
**g)** Circle to divide 16 ducks into 2 equal groups.  How many in each group?
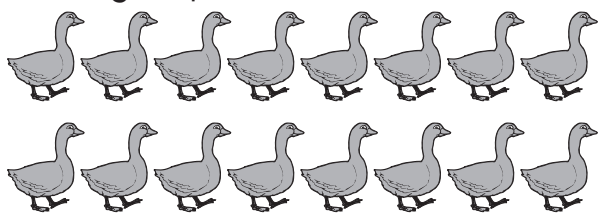
**h)** Circle to divide 15 cans into 3 equal groups.  How many in each group?
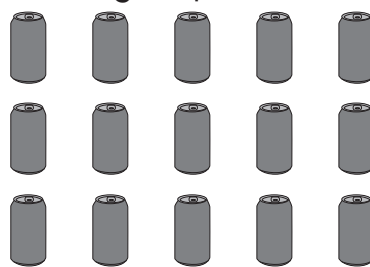
**i)** Circle to divide 12 tennis balls into 3 equal groups.  How many in each group?
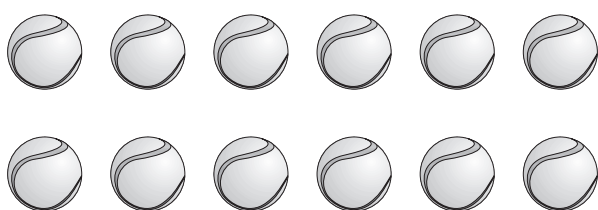
**j)** Circle to divide 24 leaves into 6 equal groups.  How many in each group?
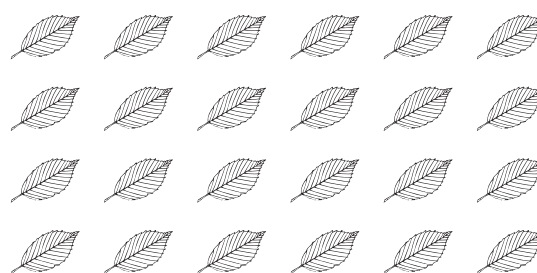
**k)** Circle to divide 6 bows into 2 equal groups.  How many in each group?

**l)** Circle to divide 12 prawns into 6 equal groups.  How many in each group?
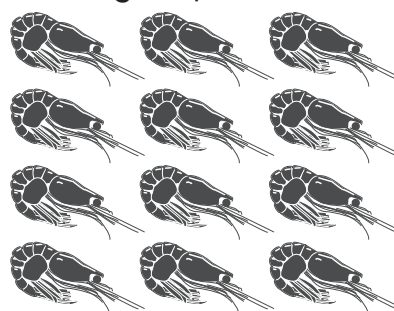
**m)** Circle to divide 12 pinwheels into 4 equal groups.  How many in each group?

**n)** Circle to divide 12 envelopes into 6 equal groups.  How many in each group?
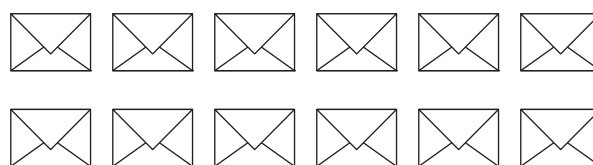
**Skill 3.**11    Modeling division by arranging objects in equal groups, by using pictures (1).

- Try different ways to arrange all the objects into equal groups.
- Count the number of objects in each group to complete the division.

**Q.** Circle to make 5 equal groups.
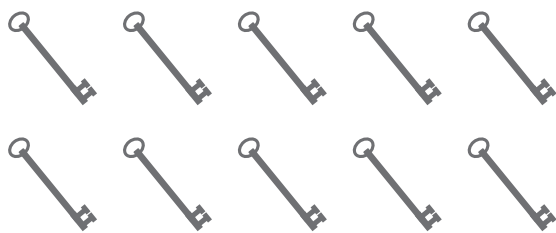
10 divided into 5 groups = ☐

**A.** *10 divided into 5 groups = 2*

①
②
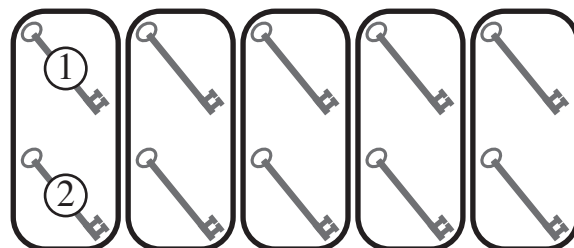
Group 1  Group 2  Group 3  Group 4  Group 5

**a)** Circle to make 4 equal groups.

20 divided into 4 groups = 5

**b)** Circle to make 6 equal groups.
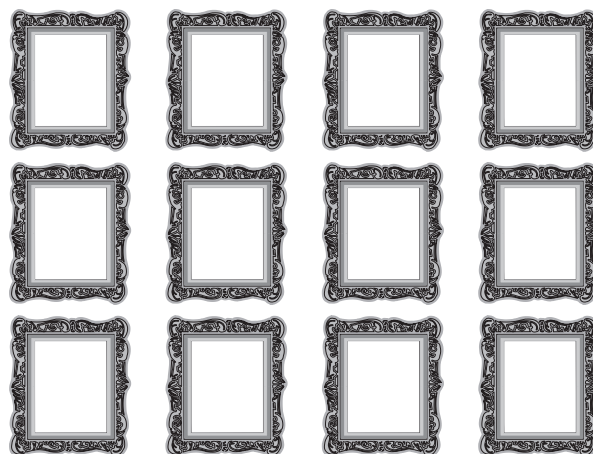
12 divided into 6 groups = ☐

**c)** Circle to make 7 equal groups.
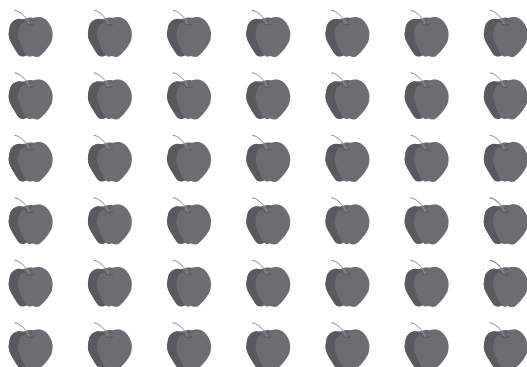
42 divided into 7 groups = ☐

**d)** Circle to make 3 equal groups.

18 divided into 3 groups = ☐

**Skill 3.**11    Modeling division by arranging objects in equal groups,
                  by using pictures (2).

MM2.2  1 1 22 33 44
MM3.1  1 1 22 33 44

**e)**  Circle to make 4 equal groups.
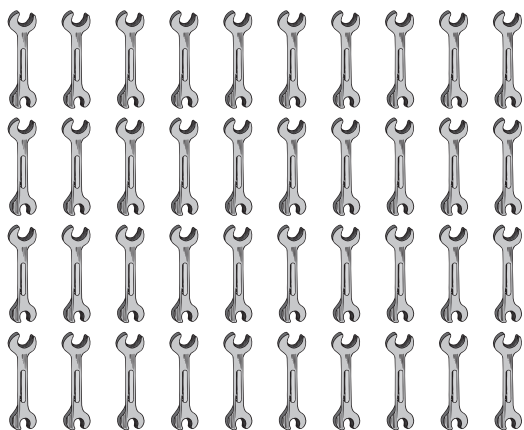
40 divided into 4 groups = ☐

**f)**  Circle to make 5 equal groups.
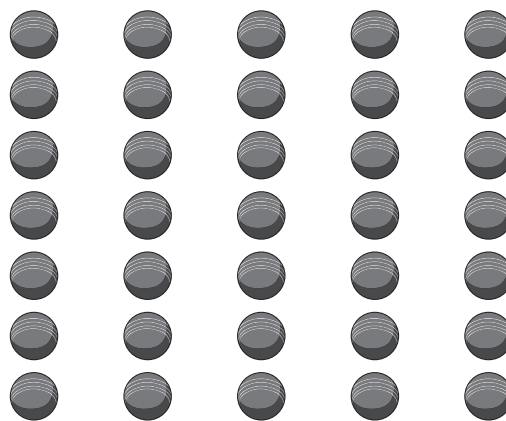
35 divided into 5 groups = ☐

**g)**  Circle to make 3 equal groups.
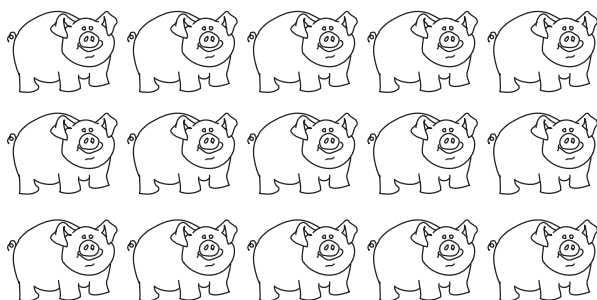
15 divided into 3 groups = ☐

**h)**  Circle to make 4 equal groups.
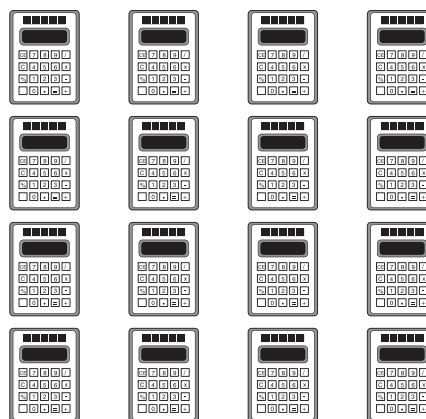
16 divided into 4 groups = ☐

**i)**  Circle to make 4 equal groups.

28 divided into 4 groups = ☐

**j)**  Circle to make 3 equal groups.
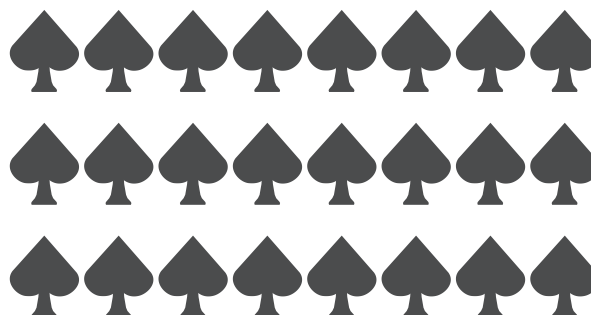
24 divided into 3 groups = ☐

## Skill 3.12   Modeling division by arranging objects in equal groups, by using arrays (1).

• Count the number of objects in each group to complete the division.

**Q.**

21 divided into 3 groups =

$21 \div 3 =$ ☐
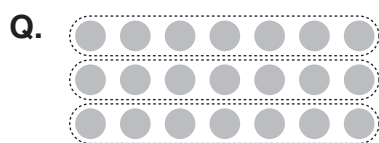
**A.** $21 \div 3 = \textbf{7}$

There are 7 dots in each group.

**a)**
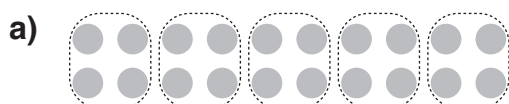
20 divided into 5 groups =

$20 \div 5 = \boxed{4}$

**b)**
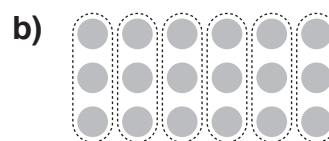
18 divided into 6 groups =

$18 \div 6 =$ ☐

**c)**
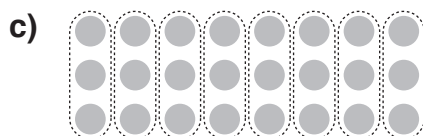
24 divided into 8 groups =

$24 \div 8 =$ ☐

**d)**
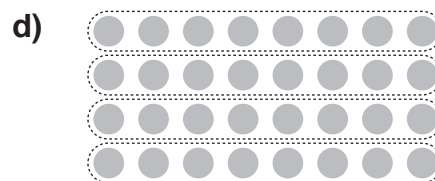
32 divided into 4 groups =

$32 \div 4 =$ ☐

**e)**

21 divided into 3 groups =

$21 \div 3 =$ ☐

**f)**
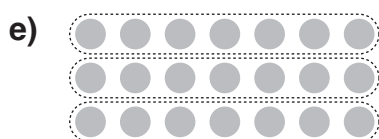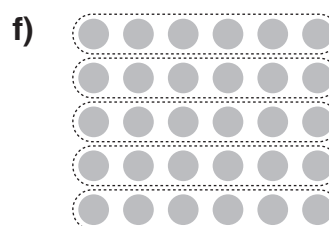
30 divided into 5 groups =

$30 \div 5 =$ ☐

**g)**
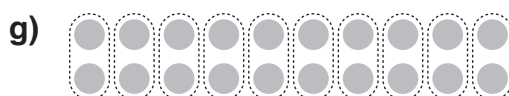
20 divided into 10 groups =

$20 \div 10 =$ ☐

**h)**
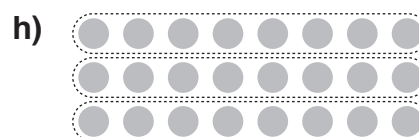
24 divided into 3 groups =

$24 \div 3 =$ ☐

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# Skill 3.12 Modeling division by arranging objects in equal groups, by using arrays (2).

**i)**
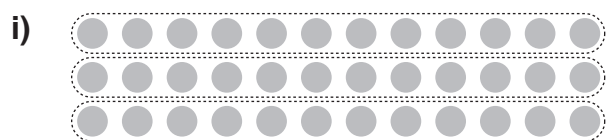
36 divided into 3 groups =

$\boxed{\phantom{00}} \div \boxed{\phantom{00}} = \boxed{\phantom{00}}$

**j)**
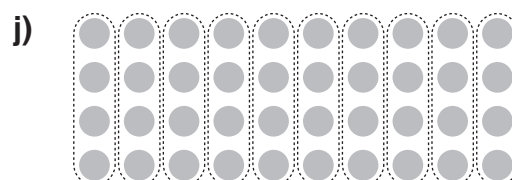
40 divided into 10 groups =

$\boxed{\phantom{00}} \div \boxed{\phantom{00}} = \boxed{\phantom{00}}$

**k)**
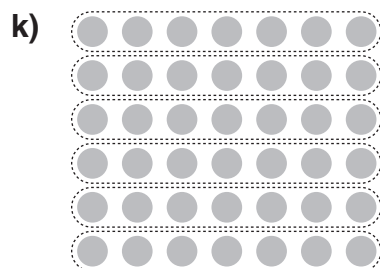
42 divided into 6 groups =

$\boxed{\phantom{00}} \div \boxed{\phantom{00}} = \boxed{\phantom{00}}$

**l)**
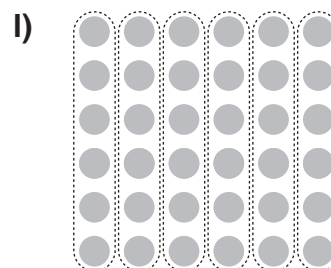
36 divided into 6 groups =

$\boxed{\phantom{00}} \div \boxed{\phantom{00}} = \boxed{\phantom{00}}$

**m)**
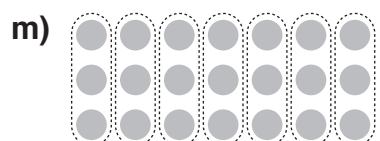
21 divided into 7 groups =

$\boxed{\phantom{00}} \div \boxed{\phantom{00}} = \boxed{\phantom{00}}$

**n)**
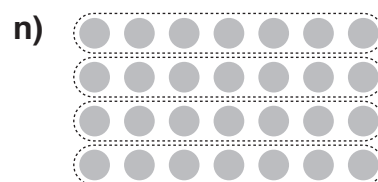
28 divided into 4 groups =

$\boxed{\phantom{00}} \div \boxed{\phantom{00}} = \boxed{\phantom{00}}$

**o)**
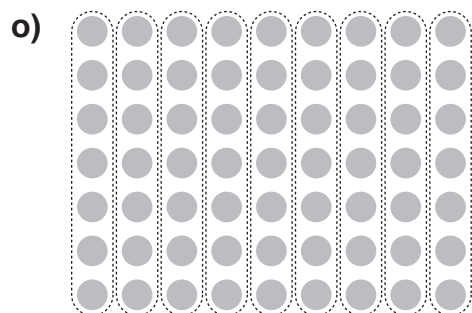
63 divided into 9 groups =

$\boxed{\phantom{00}} \div \boxed{\phantom{00}} = \boxed{\phantom{00}}$

**p)**
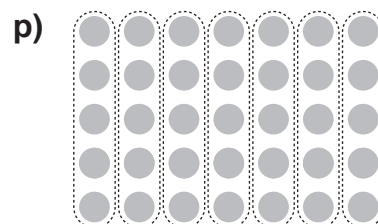
35 divided into 7 groups =

$\boxed{\phantom{00}} \div \boxed{\phantom{00}} = \boxed{\phantom{00}}$

**Skill 3.**13  Modeling division by the numbers from 1 to 10, by using repetitive subtraction (1).

- Identify the smaller number which is repeatedly subtracted from the bigger number.
- Count how many times the smaller number is subtracted, to complete the division.

OR

- Count the number of equal groups containing a number of objects equal to the number being subtracted.

**Q.**
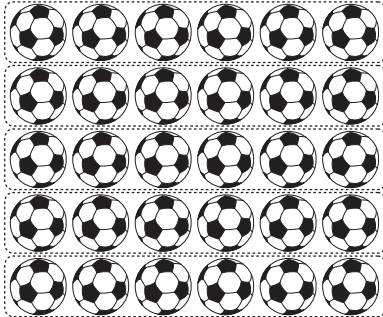


$$30 - 6 - 6 - 6 - 6 - 6 = 0$$

$$30 \div 6 = \boxed{\phantom{0}}$$

**A.**  $30 \div 6 = \mathbf{5}$

$$30 \underbrace{- 6 - 6 - 6 - 6 - 6}_{\text{5 times}} = 0$$

6 is subtracted repeatedly 5 times from 30.
6 divides exactly 5 times into 30.

OR



Group 1
Group 2
Group 3
Group 4
Group 5
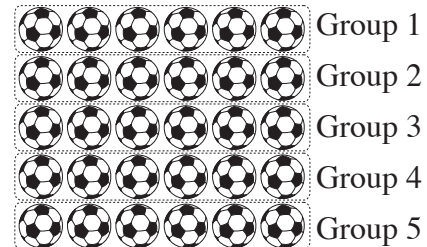
There are 5 groups of 6 balls.

**a)**
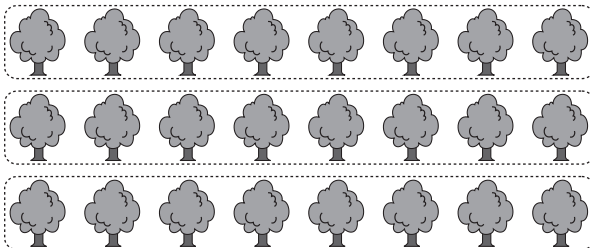


$$24 - 8 - 8 - 8 = 0$$

$$24 \div 8 = \boxed{3}$$

**b)**



$$24 - 4 - 4 - 4 - 4 - 4 - 4 = 0$$

$$24 \div 4 = \boxed{\phantom{0}}$$
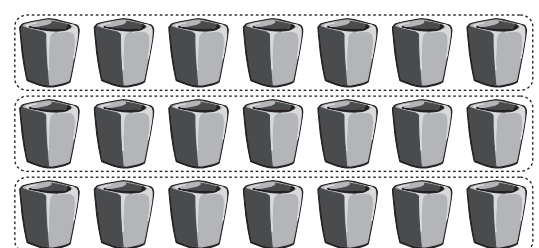
**c)**



$$36 - 9 - 9 - 9 - 9 = 0$$

$$36 \div 9 = \boxed{\phantom{0}}$$

**d)**



$$21 - 7 - 7 - 7 = 0$$

$$21 \div 7 = \boxed{\phantom{0}}$$

**Skill 3.**13    Modeling division by the numbers from 1 to 10, by using repetitive subtraction (2).
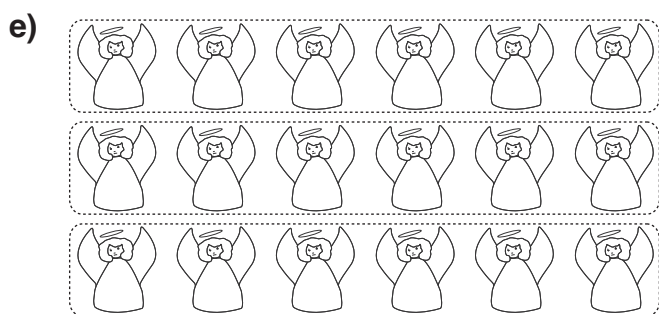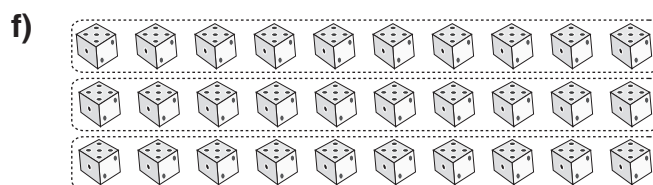
**e)**

$$18 - 6 - 6 - 6 = 0$$

$$18 \div 6 = \boxed{\phantom{00}}$$

**f)**

$$30 - 10 - 10 - 10 = 0$$

$$30 \div 10 = \boxed{\phantom{00}}$$

**g)**

$$21 - 3 - 3 - 3 - 3 - 3 - 3 - 3 = 0$$

$$21 \div 3 = \boxed{\phantom{00}}$$

**h)**

$$12 - 3 - 3 - 3 - 3 = 0$$

$$12 \div 3 = \boxed{\phantom{00}}$$

**i)**

$$15 - 3 - 3 - 3 - 3 - 3 = 0$$

$$15 \div 3 = \boxed{\phantom{00}}$$

**j)**

$$25 - 5 - 5 - 5 - 5 - 5 = 0$$

$$25 \div 5 = \boxed{\phantom{00}}$$

• Count the number of groups to complete the division.

Q.
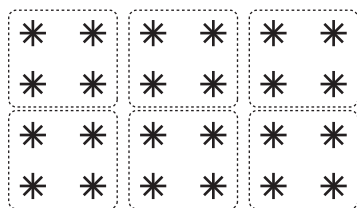
24 divided into groups of 4 =

$24 \div 4 = \boxed{\phantom{0}}$

A. $24 \div 4 = \textbf{\textit{6}}$
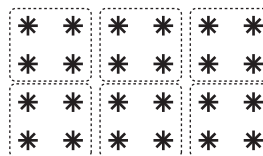
There are 6 groups of 4 objects.

a)
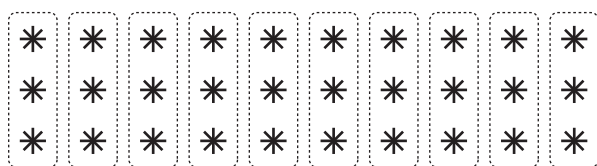
30 divided into groups of 3 =

$30 \div 3 = \boxed{10}$

b)
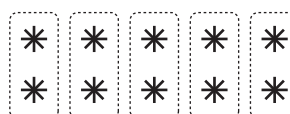
10 divided into groups of 2 =

$10 \div 2 = \boxed{\phantom{0}}$

c)
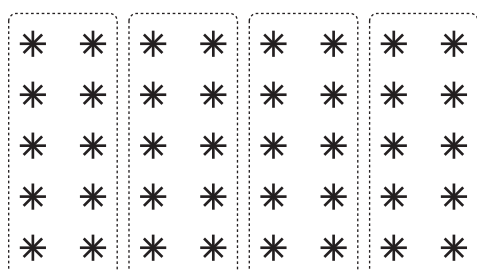
40 divided into groups of 10 =

$40 \div 10 = \boxed{\phantom{0}}$

d)
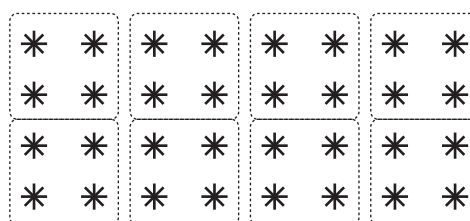
32 divided into groups of 4 =

$32 \div 4 = \boxed{\phantom{0}}$

e)
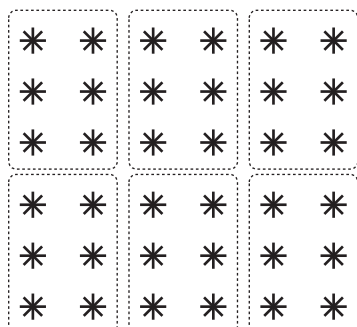
36 divided into groups of 6 =

$36 \div 6 = \boxed{\phantom{0}}$

f)
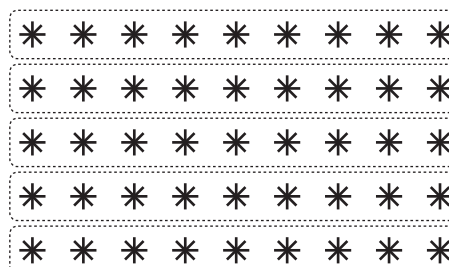
45 divided into groups of 9 =

$45 \div 9 = \boxed{\phantom{0}}$

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Skill 3.14    Modeling division by arranging an equal number of objects into groups, by using arrays (2).

MM2.2  1 1  2 2  3 **3**  4 4
MM3.1  1 1  2 **2**  3 3  4 4

**g)**
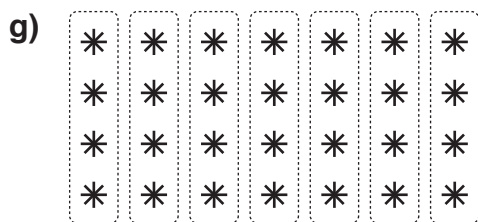


28 divided into groups of 4 =

☐ ÷ ☐ = ☐

**h)**
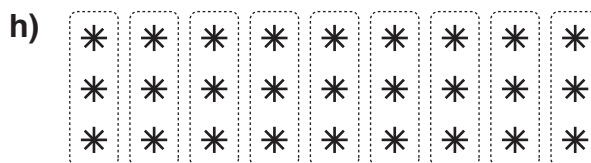


27 divided into groups of 3 =

☐ ÷ ☐ = ☐

**i)**



40 divided into groups of 5 =

☐ ÷ ☐ = ☐

**j)**
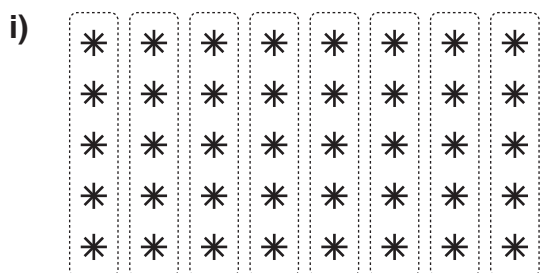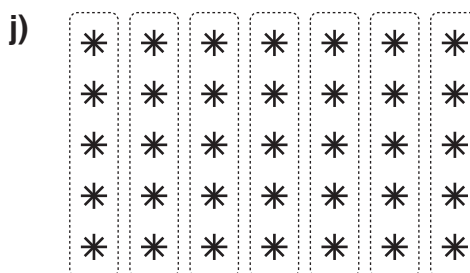


35 divided into groups of 5 =

☐ ÷ ☐ = ☐

**k)**
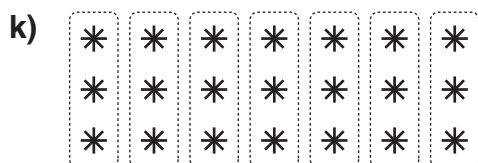


21 divided into groups of 3 =

☐ ÷ ☐ = ☐

**l)**
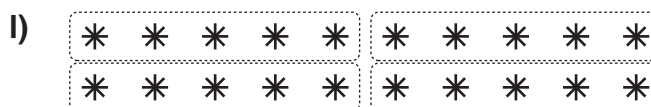


20 divided into groups of 5 =

☐ ÷ ☐ = ☐

**m)**



40 divided into groups of 4 =

☐ ÷ ☐ = ☐

**n)**
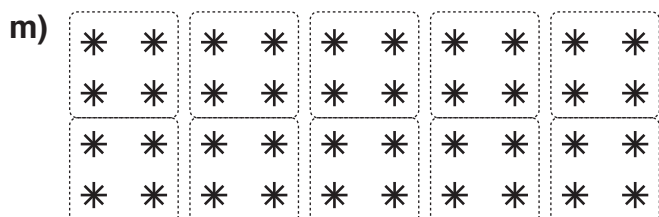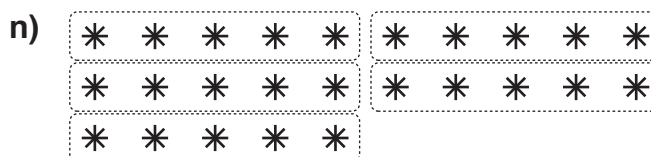


25 divided into groups of 5 =

☐ ÷ ☐ = ☐

**Skill 3.15** Modeling division by the numbers from 1 to 10, by using arrays (1).

MM2.2 11 22 33 **4** 4
MM3.1 11 22 **3** 44

- Look at the number you divide by.
- Circle squares to make that number of equal groups.
- Count the number of squares in each group to complete the division.

**Q.** Circle to complete the division.
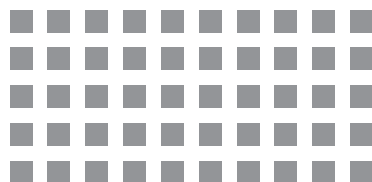
$50 \div 5 = \boxed{\phantom{0}}$

**A.** $50 \div \boxed{5} = \boldsymbol{10}$

the number you divide by

Group 1
Group 2
Group 3
Group 4
Group 5
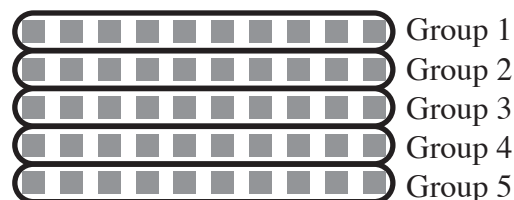
There are 10 squares in each group.

**a)** Circle to complete the division.
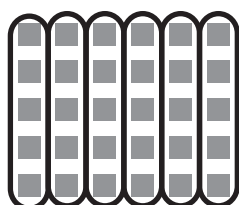
$30 \div 6 = \boxed{5}$

**b)** Circle to complete the division.
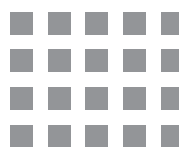
$20 \div 4 = \boxed{\phantom{0}}$

**c)** Circle to complete the division.
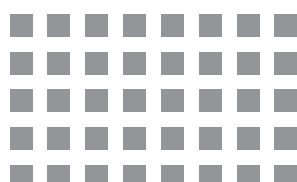
$40 \div 5 = \boxed{\phantom{0}}$

**d)** Circle to complete the division.
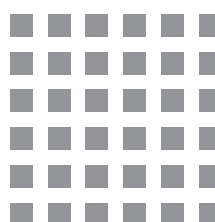
$36 \div 6 = \boxed{\phantom{0}}$

**e)** Circle to complete the division.

$42 \div 7 = \boxed{\phantom{0}}$

**f)** Circle to complete the division.

$48 \div 6 = \boxed{\phantom{0}}$

**Skill 3.**15    Modeling division by the numbers from 1 to 10, by using arrays (2).

MM2.2  1 1  2 2  3 3  **4** 4
MM3.1  1 1  2 2  **3** 3  4 4
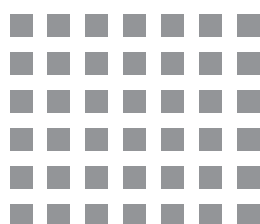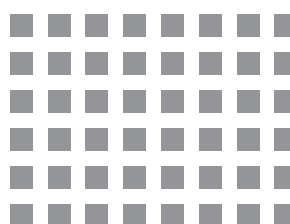
**g)**  Circle to complete the division.

$20 \div 2 = \boxed{\phantom{00}}$

**h)**  Circle to complete the division.

$14 \div 2 = \boxed{\phantom{00}}$

**i)**  Circle to complete the division.
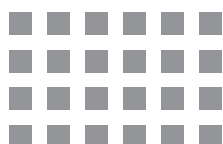
$24 \div 6 = \boxed{\phantom{00}}$

**j)**  Circle to complete the division.
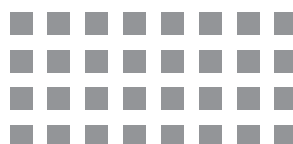
$32 \div 4 = \boxed{\phantom{00}}$

**k)**  Circle to complete the division.
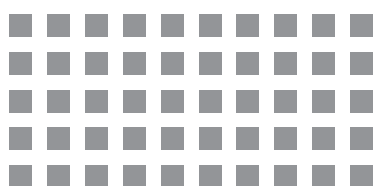
$50 \div 10 = \boxed{\phantom{00}}$

**l)**  Circle to complete the division.
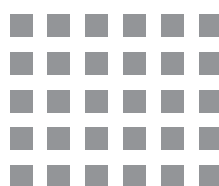
$30 \div 5 = \boxed{\phantom{00}}$

**m)**  Circle to complete the division.

$27 \div 3 = \boxed{\phantom{00}}$

**n)**  Circle to complete the division.

$30 \div 10 = \boxed{\phantom{00}}$

**o)**  Circle to complete the division.
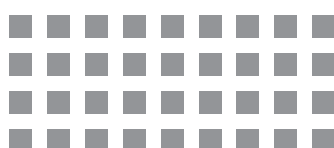
$36 \div 9 = \boxed{\phantom{00}}$

**p)**  Circle to complete the division.

$40 \div 8 = \boxed{\phantom{00}}$

**Skill 3.**15    Modeling division by the numbers from 1 to 10, by using arrays (3).

MM2.2   1 1   2 2   3 3   **4**   4
MM3.1   1 1   2 2   **3**   4 4
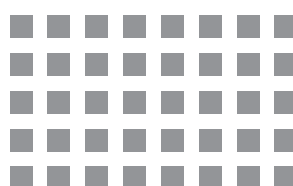
**q)**   Circle to complete the division.

$48 \div 4 =$ ☐
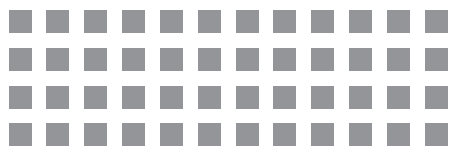
**r)**   Circle to complete the division.

$35 \div 5 =$ ☐
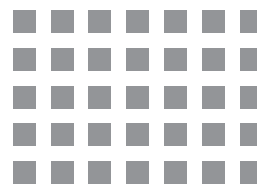
**s)**   Circle to complete the division.

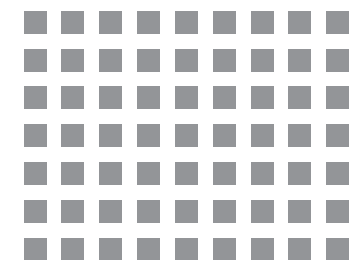$18 \div 2 =$ ☐

**t)**   Circle to complete the division.

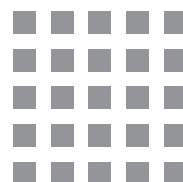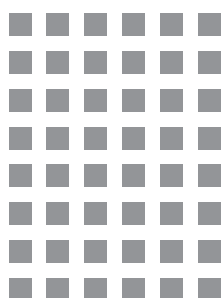$21 \div 3 =$ ☐

**u)**   Circle to complete the division.

$63 \div 9 =$ ☐

**v)**   Circle to complete the division.

$25 \div 5 =$ ☐

**w)**   Circle to complete the division.

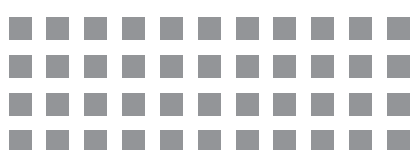$48 \div 8 =$ ☐

**x)**   Circle to complete the division.

$49 \div 7 =$ ☐
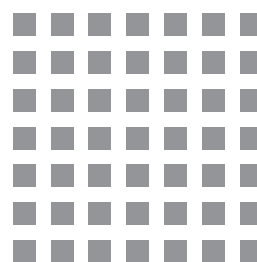
**y)**   Circle to complete the division.

$44 \div 11 =$ ☐

**z)**   Circle to complete the division.

$36 \div 12 =$ ☐

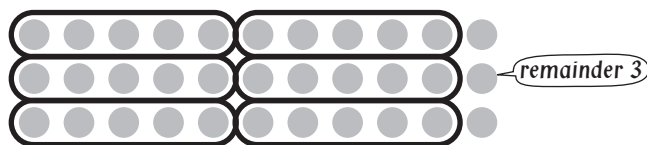## Skill 3.16   Modeling division by the numbers from 1 to 12 with remainder, by using arrays.

- Identify by what number you divide.
- Circle this number of dots to make as many equal groups as possible.
- Count the number of equal groups to get the result of the division.
- Count the number of left over dots to get the remainder of the division.
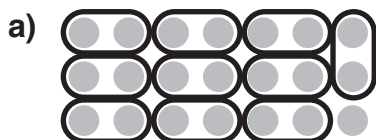
---

**Q.**



$33 \div 5 = \boxed{\phantom{0}}$ remainder $\boxed{\phantom{0}}$

**A.** $33 \div 5 = \mathbf{6}$ *remainder* $\mathbf{3}$



remainder 3

There are 6 groups of 5 dots.
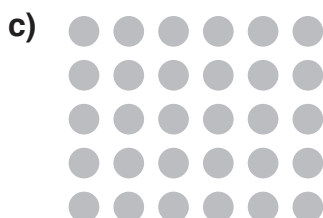
---

**a)**



$21 \div 2 = \boxed{10}$ remainder $\boxed{1}$

**b)**



$18 \div 4 = \boxed{\phantom{0}}$ remainder $\boxed{\phantom{0}}$

---

**c)**



$30 \div 9 = \boxed{\phantom{0}}$ remainder $\boxed{\phantom{0}}$

**d)**



$25 \div 10 = \boxed{\phantom{0}}$ remainder $\boxed{\phantom{0}}$

---

**e)**



$20 \div 3 = \boxed{\phantom{0}}$ remainder $\boxed{\phantom{0}}$

**f)**
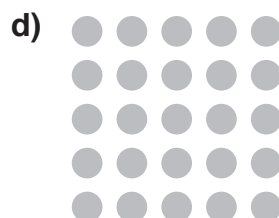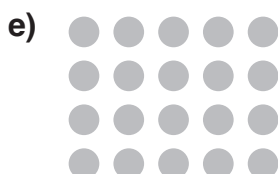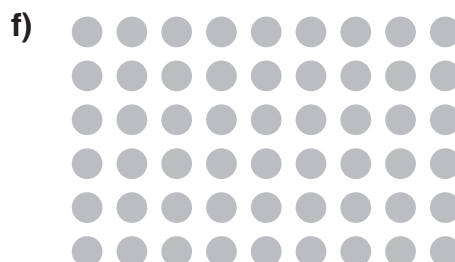


$54 \div 7 = \boxed{\phantom{0}}$ remainder $\boxed{\phantom{0}}$

---
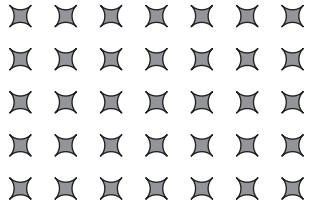
**Array is divided into equal groups**
- Notice the arrangement of numbers in both the multiplication and division.
- Count the dots in each group to complete the division.

**Array is not divided**
- Count the number of dots, rows and columns in the array to complete the multiplication and division number sentences.
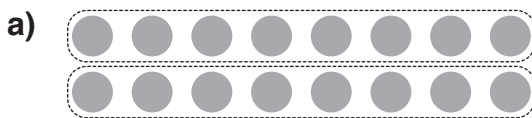
**Q.**

$5 \times \boxed{\phantom{7}} = 35$

$\boxed{\phantom{7}} \times 5 = 35$

$\boxed{\phantom{7}} \div 5 = 7$

$35 \div \boxed{\phantom{7}} = 5$

**A.** $5 \times \mathbf{7} = 35$

$\mathbf{7} \times 5 = 35$

$\mathbf{35} \div 5 = 7$

$35 \div \mathbf{7} = 5$

There are 35 dots in the array,
5 rows and
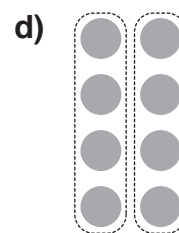7 columns.

**a)**

$2 \times 8 = 16$

$16 \div 2 = \boxed{8}$
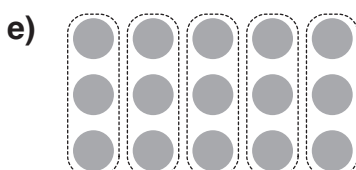
**b)**

$4 \times 5 = 20$

$20 \div 4 = \boxed{\phantom{5}}$

**c)**

$3 \times 4 = 12$

$12 \div 3 = \boxed{\phantom{4}}$

**d)**

$2 \times 4 = 8$

$8 \div 2 = \boxed{\phantom{4}}$

**e)**

$5 \times 3 = 15$

$15 \div 5 = \boxed{\phantom{3}}$

**f)**

$6 \times 2 = 12$

$12 \div 6 = \boxed{\phantom{2}}$

**g)**

$12 \times \boxed{\phantom{0}} = 36$

$\boxed{\phantom{0}} \times 3 = 36$

$36 \div 3 = \boxed{\phantom{0}}$

$36 \div \boxed{\phantom{0}} = 3$

**h)**

$9 \times \boxed{\phantom{0}} = 54$

$6 \times 9 = \boxed{\phantom{0}}$

$\boxed{\phantom{0}} \div 6 = 9$

$54 \div \boxed{\phantom{0}} = 6$

**i)**

$4 \times \boxed{\phantom{0}} = 32$

$\boxed{\phantom{0}} \times 4 = 32$

$\boxed{\phantom{0}} \div 8 = 4$

$32 \div \boxed{\phantom{0}} = 8$

**j)**

$\boxed{\phantom{0}} \times 4 = 24$

$4 \times 6 = \boxed{\phantom{0}}$

$24 \div \boxed{\phantom{0}} = 6$

$\boxed{\phantom{0}} \div 6 = 4$

**k)**

$\boxed{\phantom{0}} \times 10 = 50$

$10 \times 5 = \boxed{\phantom{0}}$

$50 \div \boxed{\phantom{0}} = 5$

$\boxed{\phantom{0}} \div 5 = 10$

**l)**

$4 \times \boxed{\phantom{0}} = 36$

$\boxed{\phantom{0}} \times 4 = 36$

$\boxed{\phantom{0}} \div 9 = 4$

$36 \div \boxed{\phantom{0}} = 9$

**m)**

$5 \times \boxed{\phantom{0}} = 35$

$\boxed{\phantom{0}} \times 5 = 35$

$\boxed{\phantom{0}} \div 5 = 7$

$35 \div \boxed{\phantom{0}} = 5$

**n)**

$\boxed{\phantom{0}} \times 3 = 27$

$3 \times 9 = \boxed{\phantom{0}}$

$27 \div \boxed{\phantom{0}} = 9$

$\boxed{\phantom{0}} \div 9 = 3$