8. [Word Problems]

Skill 8.1 Solving word problems using addition.



- Write a number sentence using the facts.
 Hint: Use the terms to help decide on the operation. (see skill 4.1 pg 79)
- Q. To ride the monorail at Disneyland takes 9 minutes. The Pirates of the Caribbean ride lasts 16 minutes. If you took both rides, how long would they take? [Write the number sentence.]

= min

A.
$$9 + 16 = 25 \text{ min}$$

Add the 9 minutes for the first ride, and the 16 minutes for the second ride. 'both' asks for the 'total' which means 'addition'.

a) The pasta took 20 minutes to cook. Next the apple pie went into the oven for 45 minutes. How long did everything take to cook?

20 + 45 = 65 min

b) The Pier 39 Carousel has 32 rides. The LA Zoo Carousel has 34 more rides than the Pier 39 Carousel. How many rides does the LA Zoo Carousel have?

= min

c) Saturn has 33 moons. The other planets in our solar system have 106 more moons. How many moons altogether in our solar system?

=

d) The average lifespan of a housefly is 14 days. The average lifespan of a bee is 32 days. For how many days in total are a bee and a fly likely to live?

= days

e) The Rialto Tower in Melbourne has 63 floors. The Eureka Tower has 29 more floors than Rialto Tower.
How many floors does the Eureka Tower have?

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At Disneyland, the King Arthur Carousel has 68 horses and the Haunted Mansion has 999 spooks. How many horses and spooks all together?

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Skill 8.2 Solving word problems using subtraction.



Write a number sentence using the facts.
 Hint: Use the terms to help decide on the operation. (see skill 5.1 pg 91)

Q. Africa has 54 countries. North America has 23 countries. How many more countries are in Africa than in North America?

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A. 54 - 23 = 31

Subtract the smaller number from the larger number.

'How many more' asks for the 'difference' which means 'subtraction'.

a) There have been 40 missions to Mars but only 15 have been successful. How many missions to Mars have not been successful?

40 - 15 = 25

b) A baseball has 108 stitches and a cricket ball has 70 stitches. How many more stitches does a baseball have?

=

c) Chuck had 16 minutes. He took 8 minutes to boil an egg. How much time did Chuck have left?

= min

d) There are 26 bones and 33 joints in the foot. How many more joints than bones are in the foot?

=

e) The brain of a chimpanzee weighs 420 grams. The brain of a horse weighs 530 grams. What is the difference between these weights?

= 9

of geese and 57 birds in the gaggle of geese and 57 birds in the murder of crows. How many more crows are there than geese?

=

g) A Chinese checkers board has 121 holes. A scrabble board has 225 squares. How many more squares than holes on these game boards?

=

h) South Korea has the world's longest golf hole. It is 1003 m long. The longest drive ever was 503 m long. What is the difference between these lengths?

= m

Skill 8.3 Solving word problems using multiplication.

Write a multiplication number sentence using the facts.

Hints: Always multiply to find a number a few times greater than another number.

Always multiply to find the total number of parts of some objects, when the number of objects and the number of parts of each object are given.

a. Septuplets are seven children born at one birth. There are 4 sets of septuplets in the world at the moment where every septuplet survived. How many septuplets is this altogether?

A. 4 sets of septuplets7 children in each set

$$\Rightarrow$$
 4 × 7 = 28

a) If 1 eyeball weighs 28 grams, how much would 10 eyeballs weigh?

b) Spiders have 8 legs. If you have 3 spiders, how many spider legs are there altogether?

10 eyeballs, 28 g each

$$10 \times 28 = 280 \text{ g}$$

=

c) One egg costs 50 cents. A loaf of bread costs 7 times more. How much does a loaf of bread cost?

d) Insects have 6 legs. If you have 9 insects, how many insect legs are there altogether?

e) For every 100 people, 9 are likely to be left handed. If there were 300 people in the room, how many would be left handed?

f) If you double the height of a 2 year old you get their adult height. Alex was 90 cm when he was 2 years old. How tall will Alex be as an adult?

=

= cm

Skill 8.4 Solving word problems using division. Write a division number sentence using the facts. Hint: Always divide to find a number of objects in each group, after equal sharing. Always divide by 2 to find one half of a quantity. A. 80 cards equally shared in **a.** Christmas cards are wrapped in packs of 10 packs of 10. How many packs are needed to wrap 80 cards? How many groups of 10 in 80? \Rightarrow 80 ÷ 10 = 8 Men's kayak single race measures b) Lydia bought a \$720 watch. She 1000 m. Women's kayak single has to pay it in eight equal race is half of this. How long is the monthly instalments. How much women's kayak single race? does she have to pay every month? 1000 m halved $1000 \div 2 = 500 \text{ m}$ c) Eggs are packed in cartons of d) Mary has \$180 in her bank 12 (a dozen). If you need 48 eggs, account. She makes equal how many cartons do you have to withdrawals of \$20 each. How many withdrawals can she make? buy? e) There are 18 chapters in 'Harry There are 9 seats in a minibus. f) Potter and the Chamber of How many minibuses are needed Secrets'. Laura reads 3 chapters to take all 30 students and their teacher to the 700? every day. In how many days will Laura finish reading the book?

days