

SCORE
A

Numbers

With Classified
answer book

8

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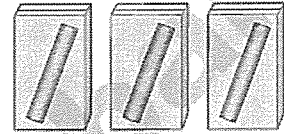
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21- Proportion

1. Pencils are sold in boxes. Each box contains 40 pencils.
How many pencils are there in 4 boxes?



2. Three boxes of rulers contain 150 rulers altogether.
How many rulers are there in 9 boxes?



3. At a service station, 6 litres of petrol costs £9
a) How much does 60 litres of petrol cost?

The weight of a piece of rope is in direct proportion to its length.

Complete the table.

Length of rope	Weight of rope
80 m	12 kg
20 m	
	32 kg
2 m	

- b) 40 g of ginger are needed to make 16 gingerbread men.

Annie wants to make 60 gingerbread men.

She has 140 g of ginger. Is this enough?

Explain your answer.

4. Are these statements true or false? Explain your answers.

a) 5 gallons of water weigh 8 lbs, so 25 gallons of water weigh 40 lbs.

b) 8 chocolate bars cost £5, so 2 chocolate bars cost £1.50

c) Henry the 8th had 6 wives, so Henry the 4th had 3 wives.

d) The length of 12 identical toy cars is 132 cm, so the length of 240 of the same toy cars is 26.4 m.

5. It takes 3 people 10 days to build a wall.

Find how many days it would take 6 people to build the same wall working at the same rate.

6. It takes 4 people 7 hours to build a shed. Copy and complete the working to answer these questions.

How long does it take 2 people to build the shed?

7. Here is a list of the ingredients needed to make leek and potato soup for 6 people.

Leek and Potato Soup
Ingredients for 6 people
900 ml chicken stock
900 ml water
750 g leeks
350 g potatoes
350 g onions

- (a) Ainsley wants to make leek and potato soup for 13 people.
Work out the amount of chicken stock he needs.

- (b) Delia makes leek and potato soup for a group of people.
She uses 1250 g of leeks.
Work out the number of people in the group.

8. Jess runs from her house to the bus stop in 60 seconds.
- When she runs faster, does it take her more or less than 60 seconds?
 - When she runs slower, does it take her more or less than 60 seconds?
 - Copy and complete the working to answer these questions.
Jess runs twice as fast.
How long does it take her to run from her house to the bus stop?

9. Here is a list of ingredients for making 10 Flapjacks.

Ingredients for 10

Flapjacks 80 g rolled

oats 60 g butter

30 m/ golden syrup

36 g light brown sugar

Work out the amount of each ingredient needed to make **15** Flapjacks.

..... g rolled oats

..... g butter

..... m/ golden syrup

..... g light brown sugar

10. It takes Hank 6 hours to drive a certain distance at an average speed of 80 km/h.

a. How long does it take Hank to drive the same distance at an average speed of

- i 160 km/h ii 40 km/h iii 120 km/h?

b. It takes Hank 8 hours to drive the same distance.

What is his average speed?

11. It takes Hank 6 hours to drive a certain distance at an average speed of 80 km/h.
- a. How long does it take Hank to drive the same distance at an average speed of 160 km/h
- b. It takes Hank 8 hours to drive the same distance. What is his average speed?
12. In a factory, 4 people can pack 20 boxes in 1 hour. How long does it take 3 people to pack 20 boxes? Give your answer in hours and minutes.
13. It takes 8 people 5 days to dig a hole. How long does it take 10 people to dig the hole?
14. Zara is looking at this question.

It takes 20 minutes to travel by train from Pembroke to Tenby. There are 60 people on the train. How long does the train take when there are 120 people on the train?

15. It takes 6 people 20 days to paint 4 houses.

a. How many houses can 3 people paint in 20 days?

b. How many people does it take to paint 4 houses in 10 days?

c. How many days does it take 8 people to paint 4 houses?

16. It takes 6 cubes to build a staircase with 3 steps.

How many cubes will be needed for 11 steps?

17. For every 30 minutes that Huan spends watching TV,

Whitney spends 2 hours.

If Huan watches TV for 4 hours, how long does Whitney watch TV for?

18. Two shops sell packs of pens.

Supermarket

Pack of 5
pens £6.25

Village shop

Pack of 6
pens £ 7.20

I want to buy 30 pens.

In which shop are the pens cheaper? You must show your working.

Tick (✓) your answer.

Supermarket

Village shop

19. Chen starts with a number.

He squares his number.

His answer is 144

Write down the two possible values of the number Chen starts with.

..... and.....