Name:

Exam Style Questions

Proportion: Time

Corbettmaths

Equipment needed: Ruler, Calculator, Pencil and Pen

Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Video Tutorial

www.corbettmaths.com/contents

Video 255c

Answers and Video Solutions

1. 5 people take 40 minutes to dig a vegetable patch.

(a) How long would it take if just one person had dug the vegetable patch?

.......................minutes

(1)

(b) How long would it take if 8 people had dug the vegetable patch?

.......................minutes

(1)

(c) State an assumption that you have made in parts (a) and (b)

....

....

(1)

2. It takes 48 minutes to empty a swimming pool using 4 pumps.

(a) How long would it take to empty the swimming pool if 3 pumps are used?

.......................minutes

(2)

(b) State an assumption that you have made in part (a)

....

....

(1)

3. Harold is decorating the top of cupcakes.
He does this at a constant rate.

It takes Harold 15 minutes to decorate 36 cupcakes.

How long would it take Harold to decorate 250 cupcakes?

........................minutes ....seconds

(3)

---

4. Peter makes personalised pet tags.
Each tag takes the same amount of time to make.

It takes Peter 90 minutes to make 15 tags.

How long will it take Peter to make 80 tags?

....

(2)

5. Last week, a company used 8 machines for 40 hours to make a number of pencils.

This week, the company plan to use 10 machines to make the same number of pencils.

(a) Work out how long it should take the 10 machines to make the pencils.

....
(2)

(b) State an assumption that you have made in part (a)

………………………………………………………………………………………

………………………………………………………………………………………

………………………………………………………………………………………
(1)

6. A printer can print at the rate of:

   3000 black and white pages in one hour

   or

   1800 colour pages in one hour

At 9am the printer prints 7500 black and white pages and then starts printing colour pages.

(a) How many colour pages can be printed by 1:15pm?

....
(4)

(b) State an assumption that you have made in part (a)

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

(1)

7.   A printer takes 5 seconds to print a leaflet.

A company want to print 18000 leaflets within 3 hours.
They plan to use 8 printers.

Will they be able to print all 18000 leaflets within 3 hours?
Explain your answer.

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

(4)

8.   At a wedding, 12 waiters can serve food to all the guests in 16 minutes.

How many waiters would be needed to serve the food to the guests in less than
10 minutes?

....

(3)

9. It takes 15 hours for 20 workers to seed 40 acres.

   How long would it take 10 workers to seed 90 acres?

....
(3)

---

10. 7 workers take $4\frac{1}{2}$ hours to make 280 Christmas cards.

   How long will it take 10 workers to make 3000 Christmas cards?
   Assume each worker makes Christmas cards at the same rate.

....
(3)

11. A team of 5 builders can build a house in 24 days, if they work 10 hours a day.

(a) How many days will it take a team of 4 builders, if they work 6 hours a day?

....

(3)

(b) State an assumption that you have made in part (a)

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

(1)

12. A leisure centre normally fills their swimming pool with 8 hoses, that each work at the same rate.
To fill an empty swimming pool, it would take all 8 hoses a total of 12 hours.

Last week, the leisure centre had an issue with some of the hoses.

They start filling the empty pool with 2 hoses.
After 4 hours, they start using an additional hose.
After 7 hours, they manage to get all 8 hoses to work.

How long did it take to fill the swimming pool?

....

(4)