

Interleaved: direct and inverse proportion

1

4 cinema tickets cost £26. How much do 7 tickets cost?

Which method?

Direct

Inverse

Neither

more tickets, more cost: one ticket £6.50, × 7

Answer

£45.50

2

5 volunteers take 12 hours to pack the food parcels. How long would 4 volunteers take, working at the same rate?

Which method?

Direct

Inverse

Neither

Answer

3

300 g of flour makes 8 pancakes. How much flour is needed for 20 pancakes?

Which method?

Direct

Inverse

Neither

Answer

4

A band of 4 musicians takes 3 minutes to play a song. How long would a band of 8 musicians take to play the same song?

Which method?

Direct

Inverse

Neither

Answer

5

With 2 taps open, a water tank empties in 18 minutes. How long does it take with 3 taps open?

Which method?

Direct

Inverse

Neither

Answer

6

A car uses 15 litres of fuel to travel 240 km. How far can it travel on 40 litres?

Which method?

Direct

Inverse

Neither

Answer

7

At 60 km/h a journey takes 2 hours 30 minutes. How long does the same journey take at 75 km/h?

Which method?

Direct

Inverse

Neither

Answer

8

Rosa is 13 years old and 160 cm tall. How tall will she be when she is 26?

Which method?

Direct

Inverse

Neither

Answer

Interleaved: direct and inverse proportion further practice

9

A rescue centre has enough food for 30 dogs for 14 days. How long would the same food last 35 dogs?

Answer

10

£1 is worth €1.16. Change £250 into euros.

Answer

11

One cake takes 40 minutes to bake in an oven. How long do two cakes take, baked side by side in the same oven?

Answer

12

3 pumps fill a pool in 8 hours. How many pumps are needed to fill it in 6 hours?

Answer

13

y is directly proportional to x. When x = 6, y = 21. Find y when x = 10.

Answer

14

y is inversely proportional to x. When x = 4, y = 15. Find y when x = 6.

Answer

15

Pay is directly proportional to the hours worked. Find the missing pay.

Hours worked	2	5	8
Pay	£23	£57.50	?

Answer

16

4 workers build a wall in 6 days. Jo says 8 workers would take 12 days. Explain her mistake and find the right time.

Answer