



KINETICS

We Nurture The Future

IIT-JEE | Medical | Foundations

Direct and Indirect Proportions

Question 1.

A mixture of paint is prepared by mixing 1 part of red pigments with 8 parts of base. How many parts of base will be used in mixture by mixing 7 part of red pigment?

- (a) 70
- (b) 56
- (c) 63
- (d) 49

Answer: (b) 56

Question 2.

If 3 men or 6 women can do a piece of work in 16 days, in how many days can 12 men and 8 women do the same piece of work?

- (a) 4 days
- (b) 5 days
- (c) 3 days
- (d) 2 days

Answer: (c) 3 days

Question 3.

If the cost of 27 bags of paddy is Rs.9450, what is the cost of 36 bags of paddy?

- (a) Rs.12000
- (b) Rs.12600
- (c) Rs.16200
- (d) Rs.10620

Answer: (b) Rs.12600

Question 4.

Raju earns Rs 1440, if he works for 12 days. If he works for 30 days, he will earn

- (a) Rs 2400
- (b) Rs 3600
- (c) Rs 4800
- (d) None of these

Answer: (b) Rs 3600

Question 5.

The scale of a map is $1:3 \times 10^7$. Two cities are 5 cm apart on the map. Find the actual distance between them in kilometres.

- (a) 1500 km
- (b) 1000 km
- (c) 1100 km
- (d) 2000 km

Answer: (a) 1500 km

Question 6.

An electric pole, 14 metres high, casts a shadow of 10 metres. Find the height of a tree that casts a shadow of 15 metres under similar conditions.

- (a) 21 metres
- (b) 30 metres
- (c) 25 metres
- (d) None of these

Answer: (a) 21 metres

Question 7.

A boy runs 1 km in 10 minutes. How long will he take to run 600 m ?

- (a) 2 minutes
- (b) 3 minutes
- (c) 4 minutes
- (d) 6 minutes

Answer: (d) 6 minutes

Question 8.

A van covers 432 km with 36 litres of diesel. How much distance would it cover with 25 litres of diesel?

- (a) 200 km

- (b) 300 km
- (c) 100 km
- (d) 350 km

Answer: (b) 300 km

Question 9.

The price of 357 mangoes is Rs.1517.25. What will be the approximate price of 49 dozens of such mangoes?

- (a) Rs.3000
- (b) Rs.3500
- (c) Rs.4000
- (d) Rs.2500

Answer: (a) Rs.3000

Question 10.

72 books are packed in 4 cartons of the same size. How many cartons are required for 360 books?

- (a) 22
- (b) 18
- (c) 20
- (d) None of these

Answer: (c) 20

Question 11.

A garrison of 500 persons had provisions for 27 days. After 3 days a reinforcement of 300 persons arrived. For how many more days will the remaining food last now?

- (a) 12 days
- (b) 14 days
- (c) 16 days
- (d) 15 days

Answer: (d) 15 days

Question 12.

Two quantities x and y are said to be in _____ if they increase (decrease) together in such a manner that the ratio of their corresponding values remains constant.

- (a) inverse proportion
- (b) mix proportion

- (c) direct proportion
- (d) None of these

Answer: (c) direct proportion

Question 13.

There is enough food to last for 40 people for 10 days. If 10 more people join them, the food will last for

- (a) 10 days
- (b) 12 days
- (c) 8 days
- (d) None of these

Answer: (c) 8 days

Question 14.

36 men can complete a piece of work in 18 days. In how many days will 27 men complete the same work ?

- (a) 24 days
- (b) 28 days
- (c) 34 days
- (d) 35 days

Answer: (a) 24 days

Question 15.

x varies inversely as square of y. Given that $y = 3$ for $x = 1$. find the value of x for $y = 4$.

- (a) 3
- (b) 9
- (c) $\frac{1}{3}$
- (d) $\frac{9}{16}$

Answer: (d) $\frac{9}{16}$

Question 16.

A journey by bus takes 45 minutes at 40 km/hour. How fast must a car go to undertake the same journey in 25 minutes?

- (a) 36 km/h
- (b) 48 km/h

- (c) 72 km/h
- (d) None of these

Answer: (c) 72 km/h

Question 17.

A can do a certain work in the same time in which B and C together can do it. If A and B together could do it in 10 days and C alone in 50 days, then B alone could do it in:

- (a) 15 days
- (b) 20 days
- (c) 25 days
- (d) 30 days

Answer: (c) 25 days

Question 18.

The cost of 5 metres of a particular quality of cloth is Rs 210. Find the cost of 2 metres of cloth of the same type.

- (a) Rs 100
- (b) Rs 84
- (c) Rs 90
- (d) Rs 60

Answer: (b) Rs 84

Question 19.

120 copies of a book cost Rs 600. What will 400 copies cost ?

- (a) Rs 1000
- (b) Rs 2000
- (c) Rs 3000
- (d) Rs 2400

Answer: (b) Rs 2000

Question 20.

6 pipes are required to fill a tank in 1 hour 20 minutes. How long will it take if only 5 pipes of the same type are used?

- (a) 56 minutes
- (b) 72 minutes

- (c) 96 minutes
- (d) 80 minutes

Answer: (c) 96 minutes

Question 21.

8 g of sandal wood cost Rs 40. What will 10 g cost ?

- (a) Rs 30
- (b) Rs 36
- (c) Rs 48
- (d) Rs 50

Answer: (d) Rs 50

Question 22.

When one quantity is increased, the other quantity is also increased. This proportion is called

- (a) Kally proportion
- (b) Direct proportion
- (c) Inverse proportion
- (d) None of these

Answer: (b) Direct proportion
