



### Exercise 9C

Number of days taken to reap the field by 16 men = 30 days

Number of days taken to reap the field by 1 man =  $30 \times 16$  days

[Less men, more days]

Number of days taken to reap the field by 20 men =  $\frac{30 \times 16}{20} = 24$  days

[More men, less days]

Hence, 20 men will take 24 days to reap the field.

The correct option is (b).

**Q10**

**Answer :**

Time taken to fill the tank by 10 pipes = 24 min

Time taken to fill the tank by 1 pipe =  $24 \times 10$  min

[Less pipes, more time taken]

Time taken to fill the tank by 8 pipes =  $\frac{24 \times 10}{8}$  min = 30 min

[More pipes, less time taken]

Hence, it will take 30 minutes to fill the tank if two pipes go out of order.

The correct option is (c).

**Q11**

**Answer :**

Cost of 72 eggs = Rs 108

Cost of 1 egg = Rs  $\frac{108}{72}$

Cost of 132 eggs = RS  $\frac{108}{72} \times 132$  = Rs 198

Hence, 132 eggs will cost Rs 198.

The correct option is (d).

**Q12**

**Answer :**

Time taken by 12 workers to complete the job = 4 h

Time taken by 1 worker to complete the job =  $4 \times 12$  h

Time taken by 15 workers to complete the job =  $\frac{4 \times 12}{15} = 3$  h 12 min

Hence, 15 workers will complete the job in 3 h 12 min.

The correct option is (b).

**Q13**

**Answer :**

500 men had enough food for 24 days.

1 man had enough food for  $24 \times 500$  days.

[Less men, more days]

800 men had enough food for  $\frac{24 \times 500}{800} = 15$  days

[More men, less days]

Hence, the food will now last for 15 days after the reinforcement of 300 men.

The correct option is (a).

**Q14**

**Answer :**

(c) 98

No. of rounds around the cylinder of radius 14 cm = 140

No. of rounds around the cylinder of radius 1 cm =  $140 \times 14$

[Less radius, more rounds]

No. of rounds around the cylinder of radius 20 cm =  $\frac{140 \times 14}{20} = 98$

[More radius, less rounds]

Hence, the rope makes 98 rounds around the circumference of the cylinder of radius 20 cm.

Q15

**Answer :**

No. of toys made in  $\frac{2}{3}$  h = 1

No. of toys made in 1 h =  $\frac{3}{2}$

No. of toys made in  $7\frac{1}{3}$  h =  $\frac{3}{2} \times \frac{22}{3} = 11$

Hence, the worker will make 11 toys in  $7\frac{1}{3}$  h.

The correct option is (d).

Q16

**Answer :**

Men required to finish the work in 8 days = 10

Men required to finish the work in 1 day =  $10 \times 8$  [More day, less men]

Men required to finish the work in half a day =  $\frac{10 \times 8}{\frac{1}{2}} = 10 \times 8 \times 2 = 160$  [Less days, more men]

Hence, 150 (i.e.,  $160 - 10$ ) men are added to finish the work in half a day.

The correct option is (d).

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