

Quantitative Aptitude Question & Answers

Question 1. A and B together can do a piece of work in 9 days. If A does thrice the work of B in a given time, the time A alone will take to finish the work is

- a. 4 days
- b. 6 days
- c. 8 days
- d. 12 days

Ans. 12 days

Explanation: $(A + B)$'s efficiency = $100/9$ ($= 11.11\%$).

Suppose, the efficiency of B = $x\%$; hence, the efficiency of A = $3x$;

$$x + 3x = 100/9; x = (25/9)\%. \Rightarrow \text{The efficiency of A} = (25/3)\%.$$

A will do this work in $= 100/(25/3) = 12$ days;

Question 2. The diameters of two cylinders are in the ratio 3:2 and their volumes are equal. The ratio of their heights is

a. 2:3

b. 3:2

c. 9:4

d. 4:9

Ans. 4:9

Explanation: Volume1: Volume2 = $(\pi r_1^2 h_1) : (\pi r_2^2 h_2)$

$2h_1) : (\pi r_2^2 h_2)$

$2h_2)$;

Since, volumes of both cylinders are equal;

$(r_1^2 h_1 = r_2^2 h_2)$

$/r_2^2)$

$2 = (h_2 / h_1) \times (r_1^2 / r_2^2)$

$\frac{h_1}{h_2} = 4:9$

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Question 3. A trader sold a cycle at a loss of 10%. If the selling price had been increased by Rs. 200, there would have been a gain of 6%. The cost price of the cycle is

a. Rs.1200

b. Rs.1205

c. Rs.1250

d. Rs.1275

Ans. Rs.1250

Explanation: Suppose that the cost price of the cycle= Rs. x ;

x -----(sold at a loss of -10%)----> $0.90x$;

$0.90x$ ------(Rs. 200 increase)-----> $0.90x + 200$;

As per the stated condition,

$$0.90x + 200 = 1.06x;$$

$$x = \text{Rs. } 1250;$$

Question 4. In a city, 40% of the people are illiterate and 60% are poor.

Among the rich, 10% are illiterate. The percentage of the illiterate poor population is

a. 36

b. 60

c. 40

d. 50

Ans. 60

Explanation: Let Total number of people = 100;

Total poor people = 60% of 100 $= (60 \times 100) / 100 = 60 = (60 \times 100) / 100 = 60$;

Therefore, rich people = 40% of 100 $= (40 \times 100) / 100 = 40 = 40$;

Total illiterate people = 40% of total people $= (40 \times 100) / 100 = 40$;

Among rich, 10% are illiterate = 10% of 40 $= (10 \times 100) / 40 = 4$;

The number of the illiterate poor population $= 40 - 4 = 36$;

Therefore, illiterate poor = 36, total population = 100;

Required percentage $= (36 \times 100) / 100 = 36\%$.

Question 5. In what time will a 100 metres long train running with a speed of 50 km/hr cross a pillar?

a. 7.0 sec

b. 72 sec

c. 7.2 sec

d. 70 sec

Ans. 7.2 sec

Explanation: $\text{Speed} = \text{Distance}/\text{Time}$;

$\text{Time} = \text{Distance}/\text{Speed}$; $\Rightarrow \text{Time} = 100/(50 \times 5/18) = 7.2 \text{ sec.}$

Question 7. If $l + m + n = 9$ and l

$2 + m^2 + n$

$2 = 31$, then the value of $lm + mn + nl$

will be

a. 22

b. 50

c. 25

d. -25

Ans. 25

Explanation: $(1 + m + n)$

$2 = 1$

$2 + m^2 + n$

$$2+2(l*m + m*n + n*l);$$

$$\text{Hence, } lm + mn + nl = 9$$

$$2 - 31 = 50/2 = 25;$$

Question 8. The centroid of a triangle is the point where

a. the medians meet

b. the altitudes meet

c. the right bisectors of the sides of the triangle meet

d. the bisectors of the angles of the triangle meet

Ans. the medians meet

Explanation: in the following figure, O is the centroid of the triangle.

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