

GMAT Arithmetic Practice Paper 1

Question 1

If two distinct integers a and b are picked from $\{1, 2, 3, 4, \dots, 100\}$ and multiplied, what is the probability that the resulting number has EXACTLY 3 factors?

A. $\frac{4}{25 \times 99}$

B. $\frac{2}{25 \times 99}$

C. $\frac{8}{25 \times 99}$

D. $\frac{16}{25 \times 99}$

E. $\frac{32}{25 \times 99}$

Question 2

Three positive integers a , b , and c are such that their average is 20 and $a \leq b \leq c$. If the median is $(a + 11)$, what is the least possible value of c ?

A. 23

B. 21

C. 25

D. 26

E. 24

Question 3

What is the remainder when the positive integer x is divided by 6?

Statement 1: When x is divided by 7, the remainder is 5.

Statement 2: When x is divided by 9, the remainder is 3.

Question 4

Three friends Alice, Bond, and Charlie divide \$1105 amongs them in such a way that if \$10, \$20, and \$15 are removed from the sums that Alice, Bond, and Charlie received respectively, then the share of the sums that they got will be in the ratio of 11 : 18 : 24. How much did Charlie receive?

- A. \$495
- B. \$510
- C. \$480
- D. \$375
- E. \$360

Question 5

Mary and Mike enter into a partnership by investing \$700 and \$300 respectively. At the end of one year, they divided their profits such that a third of the profit is divided equally for the efforts they have put into the business and the remaining amount of profit is divided in the ratio of the investments they made in the business. If Mary received \$800 more than Mike did, what was the profit made by their business in that year?

- A. \$2000
- B. \$6000
- C. \$4000
- D. \$1333
- E. \$3000

Question 6

A, B, and C each working alone can complete a job in 6, 8, and 12 days respectively. If all three of them work together to complete a job and earn \$2340, what will be C's share of the earnings?

- A. \$1100
- B. \$520
- C. \$1080
- D. \$1170
- E. \$630

Question 7

In what ratio should a 20% methyl alcohol solution be mixed with a 50% methyl alcohol solution so that the resultant solution has 40% methyl alcohol in it?

- A. 1 : 2
- B. 2 : 1
- C. 1 : 3
- D. 3 : 1
- E. 2 : 3

Question 8

If the price of gasoline increases by 25% and Ron intends to spend only 15% more on gasoline, by how much % should he reduce the quantity of gasoline that he buys?

- A. 10%

- B. 12.5%
- C. 8%
- D. 12%
- E. 6.66%

Question 9

In an election contested by two parties, Party D secured 12% of the total votes more than Party R. If party R got 132,000 votes, by how many votes did it lose the election?

- A. 240,000
- B. 300,000
- C. 168,000
- D. 36,000
- E. 24,000

Question 10

The difference between the value of a number increased by 12.5% and the value of the original number decreased by 25% is 30. What is the original number?

- A. 60
- B. 80
- C. 40
- D. 120
- E. 160

Question 11

What is the % change in the area of a rectangle when its length increases by 10% and its width decreases by 10%?

- A. 0%
- B. 20% increase
- C. 20% decrease
- D. 1% decrease
- E. Insufficient data

Question 12

If the cost price of 20 articles is equal to the selling price of 25 articles, what is the % profit or % loss made by the merchant?

- A. 25% loss
- B. 25% profit
- C. 20% loss
- D. 20% profit
- E. 5% profit

Question 13

Sam buys 10 apples for \$1. At what price should he sell a dozen apples if he wishes to make a profit of 25%?

- A. \$0.125
- B. \$1.25
- C. \$0.25
- D. \$1.5
- E. \$1.8

Question 14

By selling an article at 80% of its marked price, a merchant makes a loss of 12%. What % profit will the merchant make if the article is sold at 95% of its marked price?

- A. 5% profit
- B. 1% loss
- C. 10% profit
- D. 5.5% profit
- E. 4.5% profit

Question 15

What is the maximum percentage discount that a merchant can offer on her Marked Price so that she ends up selling at no profit or loss, if she had initially marked her goods up by 50%?

- A. 50%
- B. 20%
- C. 25%
- D. 16.67%
- E. 33.33%

Question 16

A merchant who marked his goods up by 50% subsequently offered a discount of 20% on the marked price. What is the percentage profit that the merchant made after offering the discount?

- A. 30%
- B. 125%
- C. 25%
- D. 20%
- E. 16.66%

Question 17

Braun invested a certain sum of money at 8% p.a. simple interest for 'n' years. At the end of 'n' years, Braun got back 4 times his original investment. What is the value of n?

- A. 50 years
- B. 25 years
- C. 12 years 6 months
- D. 37 years 6 months
- E. 40 years

Question 18

Shawn invested one half of his savings in a bond that paid simple interest for 2 years and received \$550 as interest. He invested the remaining in a bond that paid compound interest, interest being compounded annually, for the same 2 years at the same rate of interest and received \$605 as interest. What was the value of his total savings before investing in these two bonds?

- A. \$5500

- B. \$11000
- C. \$22000
- D. \$2750
- E. \$44000

Question 19

Ann invested a certain sum of money in a bank that paid simple interest. The amount grew to \$240 at the end of 2 years. She waited for another 3 years and got a final amount of \$300. What was the principal amount that she invested at the beginning?

- A. \$200
- B. \$150
- C. \$210
- D. \$175
- E. Insufficient data

Question 20

Peter invested a certain sum of money in a simple interest bond whose value grew to \$300 at the end of 3 years and further to \$400 at the end of another 5 years. What was the rate of interest in which he invested his sum?

- A. 12%
- B. 12.5%
- C. 6.67%
- D. 6.25%

E. 8.33%

Question 21

A train traveling at 72 kmph crosses a platform in 30 seconds and a man standing on the platform in 18 seconds. What is the length of the platform in meters?

- A. 240 meters
- B. 360 meters
- C. 420 meters
- D. 600 meters
- E. Cannot be determined

Question 22

A train traveling at 100 kmph overtakes a motorbike traveling at 64 kmph in 40 seconds. What is the length of the train in meters?

- A. 1777 meters
- B. 1822 meters
- C. 400 meters
- D. 1111 meters
- E. None of these

Question 23

Jim travels the first 3 hours of his journey at 60 mph speed and the remaining 5 hours at 24 mph speed. What is the average speed of Jim's travel in mph?

- A. 42 mph
- B. 36 mph
- C. 37.5 mph
- D. 42.5 mph
- E. 48 mph

Question 24

A runs 25% faster than B and is able to allow B a lead of 7 meters to end a race in dead heat. What is the length of the race?

- A. 10 meters
- B. 25 meters
- C. 45 meters
- D. 15 meters
- E. 35 meters

Question 25

Jane covered a distance of 340 miles between city A and city B taking a total of 5 hours. If part of the distance was covered at 60 miles per hour speed and the balance at 80 miles per hour speed, how many hours did she travel at 60 miles per hour?

- A. 2 hours 30 minutes
- B. 3 hours
- C. 2 hours
- D. 1 hour 45 minutes
- E. None of these

