GMAT Arithmetic Practice Paper 2

Question 1

Steve traveled the first 2 hours of his journey at 40 mph and the last 3 hours of his journey at 80 mph. What is his average speed of travel for the entire journey?

A. 60 mph
B. 56.67 mph
C. 53.33 mph
D. 64 mph
E. 66.67 mph

Question 2

Working together, Jose and Jane can complete an assigned task in 20 days. However, if Jose worked alone and completed half the task and then Jane takes over and completes the second half, the task will be completed in 45 days. How long will Jose take to complete the task if he worked alone? Assume that Jane is more efficient than Jose.

A. 25 days
B. 30 days
C. 60 days
D. 65 days
E. 36 days

Question 3

A can complete a project in 20 days and B can complete the same project in 30 days. If A and B start working on the project together and A quits 10 days before the project is completed, in how many days will the project be completed?

A. 18 days
B. 27 days
C. 26.67 days
D. 16 days
E. 12 days

Question 4

Ram, who is half as efficient as Krish, will take 24 days to complete a task if he worked alone. If Ram and Krish worked together, how long will they take to complete the task?

A. 16 days
B. 12 days
C. 8 days
D. 6 days
E. 18 days

Question 5

If the mean of numbers 28, x, 42, 78 and 104 is 62, what is the mean of 48, 62, 98, 124 and x ?

A. 78

B. 58
C. 390
D. 310
E. 66

Question 6

The arithmetic mean of the 5 consecutive integers starting with 's' is 'a'. What is the arithmetic mean of 9 consecutive integers that start with s + 2 ?

A. 2 + s + a
B. 22 + a
C. 2s
D. 2a + 2
E. 4 + a

Question 7

The average weight of a group of 30 friends increases by 1 kg when the weight of their football coach was added. If average weight of the group after including the weight of the football coach is 31 kg, what is the weight of their football coach ?

A. 31 kg
B. 61 kg
C. 60 kg
D. 62 kg
E. 91 kg

Question 8

The average wages of a worker during a fortnight comprising 15 consecutive working days was $90 per day. During the first 7 days, his average wages was $87/day and the average wages during the last 7 days was $92 /day. What was his wage on the 8th day ?

A. $83
B. $92
C. $90
D. $97
E. $104

Question 9

The average of 5 numbers is 6. The average of 3 of them is 8. What is the average of the remaining two numbers ?

A. 4
B. 5
C. 3
D. 3.5
E. 0.5

Question 10

The average age of a group of 10 students was 20. The average age increased by 2 years when two new students joined the group. What is the average age of the two new students who joined the group ?

A. 22 years
B. 30 years
C. 44 years
D. 32 years
E. None of these

Question 11

If m, s are the average and standard deviation of integers a, b, c, and d,

is s > 0 ?

1. m > a
2. a + b + c + d = 0

Question 12

Positive integers from 1 to 45, inclusive are placed in 5 groups of 9

each. What is the highest possible average of the medians of these 5

groups ?

A. 25
B. 31
C. 15
D. 26
E. 23

Question 13

If the average of 5 positive integers is 40 and the difference between the largest and the smallest of these 5 numbers is 10, what is the maximum value possible for the largest of these 5 integers ?

A. 50
B. 52
C. 49
D. 48
E. 44

Question 14

An analysis of the monthly incentives received by 5 salesmen : The mean and median of the incentives is $7000. The only mode among the observations is $12,000. Incentives paid to each salesman were in full thousands. What is the difference between the highest and the lowest incentive received by the 5 salesmen in the month ?

A. $4000
B. $13,000
C. $9000
D. $5000
E. $11,000

Question 15

A die is rolled and then a coin is tossed. What is the probability that the die shows an even number AND the coin shows a tail?

$\frac{1}{6}$

$\frac{1}{2}$

$\frac{1}{3}$

$\frac{1}{5}$

$\frac{1}{4}$

Question 16

In a certain class, a teacher distributed a few candies and a few bars among the students such that each student got an equal number of candies and an equal number of bars and no candies or bars remained undistributed. How many students were there in the class?

(1) The teacher distributed 180 candies and 40 bars.

(2) The total number of items received by each student was less than 20.

A

Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient to answer the question asked.

B

Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient to answer the question asked.

C

BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient to answer the question asked.

D

EACH statement ALONE is sufficient to answer the question asked.

E

Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data specific to the problem are needed.

Question 17

If no bulk purchase discount applies, what is the price of 13 oranges and 12 apples?

(1) The price of 39 oranges and 36 apples is $111.

(2) The price of 3 oranges and 2 apples is $7.

A

Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient to answer the question asked.

B

Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient to answer the question asked.

C

BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient to answer the question asked.

D

EACH statement ALONE is sufficient to answer the question asked.

E

Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data specific to the problem are needed.

Question 18

What is the price of an orange?

(1) The price of 3 oranges and 2 apples is $7.

(2) The price of an orange and the price of an apple are both integers.

A

Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient to answer the question asked.

B

Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient to answer the question asked.

C

BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient to answer the question asked.

D

EACH statement ALONE is sufficient to answer the question asked.

E

Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data specific to the problem are needed.

Question 19

For all integers

n

n, the function

f

f is defined by

f(n)=

(a)

6

n

fn=a6n, where

a

a is a constant. What is the value of

f(1)

f1?

(1)
f(2)=64
f2=64

(2)
f(3)=16
f3=16

A

Statement (1) ALONE is sufficient, but statement (2) ALONE is not sufficient to answer the question asked.

B

Statement (2) ALONE is sufficient, but statement (1) ALONE is not sufficient to answer the question asked.

C

BOTH statements (1) and (2) TOGETHER are sufficient to answer the question asked, but NEITHER statement ALONE is sufficient to answer the question asked.

D

EACH statement ALONE is sufficient to answer the question asked.

E

Statements (1) and (2) TOGETHER are NOT sufficient to answer the question asked, and additional data specific to the problem are needed.

Question 20

If both 11^2 and 3^3 are factors of the number a * 4^3 * 6^2 * 13^{11}, then what is the smallest possible value of 'a'?

A. 121
B. 3267
C. 363
D. 33
E. None of the above

Question 21

How many different positive integers exist between 10^6 and 10^7, the sum of whose digits is equal to 2?

A. 6
B. 7
C. 5
D. 8
E. 18

Question 22

A number when divided by a divisor leaves a remainder of 24. When twice the original number is divided by the same divisor, the remainder is 11. What is the value of the divisor?

A. 13
B. 59
C. 35

D. 37
E. 12

Question 23

How many keystrokes are needed to type numbers from 1 to 1000?

A. 3001
B. 2893
C. 2704
D. 2890
E. None of these

Question 24

When 242 is divided by a certain divisor the remainder obtained is 8. When 698 is divided by the same divisor the remainder obtained is 9. However, when the sum of the two numbers 242 and 698 is divided by the divisor, the remainder obtained is 4. What is the value of the divisor?

A. 11
B. 17
C. 13
D. 23
E. None of these

Question 25

How many integral divisors does the number 120 have?

A. 14
B. 16
C. 12
D. 20

E. None of these