

GRE Arithmetic Practice Paper 5

Question 1

If j and k are positive numbers, what percent of $(j^3 + 4)$ is k ?

1. $k(j^3 + 4) \%$
2. $100kj^3 + 4 \%$
3. $j^3 + 4k \%$
4. $kj^3 + 4 \%$
5. $j^3 + 4100k \%$

Question 2

What is the least common multiple of 350 and 6270?

Possible Answers:

None of the other answers

109,725

219,450

1,097,250

2,194,500

Question 3

Find the greatest common factor of 16 and 24.

Possible Answers:

2

4

8

16

Question 4

Working alone at its constant rate, machine *A* produces k liters of a chemical in 10 minutes. Working alone at its constant rate, machine *B* produces k liters of the chemical in 15 minutes. How many minutes does it take machines *A* and *B*, working simultaneously at their respective constant rates, to produce k liters of the chemical?

Question 5

What is the greatest common factor of 18 and 24?

Possible Answers:

24

6

9

18

3

Question 6

What is the greatest common factor of 6930 and 288?

Possible Answers:

288
18
9
1995840
110880

Question 7

If the ratio of the ages of two friends A and B is 3 : 5 and that of B and C is 3 : 5 and the sum of the ages of all 3 friends is 147, how old is B ?

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- A. 15 years
 - B. 75 years
 - C. 49 years
 - D. 45 years
 - E. 27 years

Question 8

A and B together complete a work in 4 days, B and C together in 6 days, C and A together in 5 days. Working independently, who will finish the work in the least time and in how many days?

A. A, $\frac{120}{7}$ days

B. A, $\frac{120}{17}$ days

C. B, $\frac{120}{13}$ days

D. B, $\frac{120}{17}$ days

E. C, $\frac{120}{7}$ days

Question 9

Convert 0.2512(12) to a fraction

Question 10

Which of the following is a prime number?

Possible Answers:

9

51

71

15

6

Question 11

If x is a prime number, then $3x$ is

Possible Answers:

even

odd

cannot be determined

a prime number

divisible by 4

Question 12

Which of the following pairs of numbers are twin primes?

Possible Answers:

1, 2

13, 19

2, 3

1, 3

3, 5

Question 13

The water level in a tank is lowered by 6 inches, then raised by $8\frac{1}{2}$ inches, and then lowered by 4 inches.

If the water level was x inches before the changes in level, which of the following represents the water level, in inches, after the changes?

- (A) $x - 1\frac{1}{2}$
- (B) $x + 1\frac{1}{2}$
- (C) $x - 6\frac{1}{2}$
- (D) $x + 6\frac{1}{2}$
- (E) $x - 18\frac{1}{2}$

Question 14

Which of the following sets of number is has the greatest standard deviation?

- (A) 2, 3, 4
- (B) 2.5, 3, 3.5
- (C) 1, 1.25, 1.5
- (D) -2, 0, 2
- (E) 20, 21, 21.5

Question 15

If the radius of a circular region were decreased by 20 percent, the area of the circular region would decrease by what percent?

- (A) 16%
- (B) 20%
- (C) 36%
- (D) 40%
- (E) 44%

Question 16

If revenues \$196,000 from division A of Company X represent 28 percent of the total revenues of Company X for the year, What were the total revenues of Company X for the year?

- (A) \$141,100
- (B) \$272,000
- (C) \$413,300
- (D) \$596,100
- (E) \$700,000

Question 17

The savings rate for Canada was approximately how many times that of the United States?

- (A) $1\frac{1}{2}$
- (B) 2
- (C) $2\frac{1}{2}$
- (D) 3
- (E) $3\frac{1}{2}$

Question 18

$$\left(\frac{x}{y}\right)^3 \left(\frac{2y}{x}\right)^4 ?$$

- (A) $2xy$
- (B) $8xy^2$
- (C) $16x^2y^3$
- (D) $\frac{2y}{x}$
- (E) $\frac{16y}{x}$

Question 19

A certain doctor suggests that an individual's daily water intake be $\frac{1}{2}$ ounce per pound of body weight plus 8 ounces for every 25 pounds by which the individual exceeds his or her ideal weight. If this doctor suggests a daily water intake of 136 ounces for a particular 240-pound individual, how many pounds above his or her ideal weight is that individual?

- (A) $12\frac{1}{2}$
- (B) 16
- (C) 30
- (D) 50
- (E) 120

Question 20

In a group of 80 students, 24 are enrolled in geometry, 40 in biology, and 20 in both. If a student were randomly selected from the 80 students, what is the probability that the student selected would not be enrolled in either course?

- (A) 0.20
- (B) 0.25
- (C) 0.45
- (D) 0.55
- (E) 0.60