

College Admission VPT

Virginia Placement Test

For More Information – Visit link below:

<https://www.examsempire.com/>

Product Version

1. Up to Date products, reliable and verified.
2. Questions and Answers in PDF Format.



<https://examsempire.com/>

Visit us at: <https://www.examsempire.com/vpt>

Latest Version: 6.0

Question: 1

What is the value of $2x^2 + 5x - y^2$ when $x = 3$ and $y = 5$?

- A. -4
- B. 8
- C. 16
- D. 72

Answer: B

Explanation:

To evaluate the expression for the given values of x and y, substitute the values into the expression and then calculate the result:

$$\begin{aligned}2x^2 + 5x - y^2 &= 2(3)^2 + 5(3) - (5)^2 \\&= 2 \cdot 9 + 5 \cdot 3 - 25 \\&= 18 + 15 - 25 \\&= 8\end{aligned}$$

Question: 2

$$(y^2 + 9y - 2) + (4y^2 - y - 5) =$$

- A. $5y^2 + 8y - 7$
- B. $5y^2 + 8y + 10$
- C. $5y^2 + 10y - 7$
- D. $5y^2 + 10y + 10$

Answer: A

Explanation:

To add quadratic expressions, combine like terms. In this problem, there are three sets of like terms: the y^2 -terms, the y -terms, and the constants. Set up the addition vertically, making sure to line up like terms, and then add them together:

$$y^2 + 9y - 2$$

$$+4y^2 - y - 5$$

$$5y^2 + 8y - 7$$

Question: 3

If $x^2 + 5x = 6$, then $x = ?$

- A. -6 or -1
- B. -6 or 1
- C. -1 or 6
- D. 1 or 6

Answer: B

Explanation:

The given equation is a quadratic equation that can be solved by factorization. First, move everything to one side to get it in the correct form, by subtracting 6 from both sides:

$$x^2 + 5x = 6$$

$$x^2 + 5x - 6 = 0$$

This factors out to:

$$(x + 6)(x - 1) = 0$$

Thus, the two solutions to the equation are $x = -6$ and $x = 1$.

Question: 4

What percent of 56 is 42?

- A. 60%
- B. 72.5%
- C. 75%
- D. 85%

Answer: C

Explanation:

A percent is a part divided by the whole ($\frac{\text{part}}{\text{whole}}$). In this problem, the part is 42 and the whole is 56, so the ratio can be expressed as $\frac{42}{56}$ or 0.75:

$$\frac{42}{56} = 0.75 = 75\%$$

Question: 5

What is of 25?

- A. 10
- B. 11
- C. 12
- D. 14

Answer: D

Explanation:

19. D: First convert the percent to a decimal number by dividing it by 100, or, equivalently, by moving the decimal point places to the left:

$$56\% = 0.56$$

Next, calculate 56% of 25 by multiplying 25 by 0.56:

$$0.56 \times 25 = 14$$

Question: 6

Solve the following equation, $5(80 / 8) + (7 - 2) - (9 \times 5) =$

- A. -150
- B. 10
- C. 100
- D. 230

Answer: B

Explanation:

$$5 \times (80 / 8) + (7 - 2) - (9 \times 5) =$$

Remember the order of operations: Parentheses, exponents, multiplication, division, addition, subtraction.

Perform the operations inside the parentheses first:

$$5 \times (10) + (5) - (45) =$$

Then, do any multiplication and division, working from left to right:

$$50 + 5 - 45 =$$

Finally, do any adding or subtracting, working from left to right:

$$55 - 45 = 10$$

Question: 7

Solve the following equation, $\frac{4 - (-12)}{-9 + 5} =$

- A. -8

- B. -4
- C. -2
- D. 4

Answer: B

Explanation:

According to the order of operations (PEMDAS), first simplify the numerator and the denominator of the expression, then perform the division:

$$\frac{4 - (-12)}{-9 + 5} = \frac{4 + 12}{-9 + 5} = \frac{16}{-4} = -4$$

Question: 8

If $x = 2y - 3$ and $2x + \frac{1}{2}y = 3$, then $y = ?$

- A. $-\frac{2}{3}$
- B. 1
- C. 2
- D. $\frac{18}{7}$

Answer: C

Explanation:

The given equations form a system of linear equations. Since the first equation is already given in terms of x , it will be easier to solve it using the substitution method. Start by substituting $2y - 3$ for x in the second equation:

$$2x + \frac{1}{2}y = 3 \quad 2(2y - 3) + \frac{1}{2}y = 3$$

Next, solve the resulting equation for y . Distribute the 2 and then combine like y -terms in the result:

$$4y - 6 + \frac{1}{2}y = 3 \quad \frac{9}{2}y - 6 = 3$$

Finally, isolate the variable y by adding 6 to both sides and then dividing both sides by the coefficient of y , which is $\frac{9}{2}$ (or, equivalently, multiply by 2 and divide by 9):

$$\frac{9}{2}y = 9 \quad y = 2$$

Thank You for Trying Our Product

Special 16 USD Discount Coupon: NSZUBG3X

Email: support@examsempire.com

**Check our Customer Testimonials and ratings
available on every product page.**

Visit our website.

<https://examsempire.com/>