PERT Math Practice Test

Below are 12 sample PERT math questions. Select the correct answer choice for each question. These 12 questions represent only 40% of the total questions on the actual math section of the PERT. To get a complete, full-length, 30-question PERT math practice test and solution guide, please visit PERT Practice Resources page at www.theperttest.com.

DO NOT USE A CALCULATOR WHILE WORKING ON THESE SAMPLE QUESTIONS. CALCULATORS CANNOT BE USED ON MOST QUESTIONS ON THE MATH SECTION OF THE ACTUAL PERT PLACEMENT TEST.

1. Solve for x: $7 - 3(x + 4) = 10$

a. -5 b. 0

c. 3 d. -2

$7 - 3x - 12 = 10$
$-3x - 5 = 10$
$-3x = 15$
$x = -5$

2. Solve the formula $2x + 5y = 10$ for y.

a. $y = \frac{5}{2}x - 2$ b. $y = -2x + 10$

c. $y = 2x - 2$ d. $y = -\frac{2}{5}x + 2$

$5y = -2x + 10$
$y = -\frac{2}{5}x + 2$

3. Evaluate $x^2y - 4xy$ for $x = 4$ and $y = -2$

a. -8 b. 288

c. 0 d. 16

$(4)^2(-2) - 4(4)(-2)$
$(16)(-2)-(16)(-2)$
$-32 + 32 = 0$

4. Solve the inequality $7 - 2y \geq -5$

a. $y \geq -6$ b. $y \leq 6$

c. $y \geq 6$ d. $y \leq -6$

$-2y \geq -12$
$y \leq 6$

5. The perimeter of a rectangular garden is 54 feet. The length of the garden is 7 feet more than its width; find the length of the garden.

a. 13.5 feet b. 10 feet

c. 7 feet d. 17 feet

$2l + 2w = P$
$2(w + 7) + 2w = 54$
$2w + 14 + 2w = 54$
$4w + 14 = 54$
$4w = 40$
$w = 10$ and $l = 10 + 7 = 17$

6. Simplify $(-5x^4y^4)(4x^{-7}y)$

a. $9x^{-3}y^5$ b. $-20x^{11}y^4$

c. $-\frac{20y^4}{x^3}$ d. $-\frac{20y^5}{x^3}$

$-20x^{4+7}y^{4+1}$
$-20x^{11}y^5$

7. Multiply: $(4n - 3)^2$

a. $16n^2 + 9$ b. $16n^2 - 9$

c. $16n^2 - 24n + 9$ d. $16n^2 - 12n + 6$

$(4n - 3)(4n - 3)$
$4n(4n - 3) - 3(4n - 3)$
$16n^2 - 12n - 12n + 9$
$16n^2 - 24n + 9$

8. What is one factor of the trinomial: $6x^2 + 5x - 6$

a. $2x + 3$ b. $x - 2$

c. $2x - 3$ d. $3x + 2$

$(6)(-6) = -36$
$(9)(-4) = -36$ and $9 + (-5) = 5$
$6x^2 + 9x - 4x - 6$
$3x(2x + 3) - 2(2x + 3) = (3x - 2)(2x + 3)$

9. Solve $3y^2 + 12y = 0$.

a. $y = 0$ or 2 b. $y = 0$ or -4

c. $y = 3$ or -4 d. $y = 3$ or 12

$3y(y + 4) = 0$
$3y = 0$ or $y + 4 = 0$
$y = 0$ or $y = -4$

10. Simplify $\sqrt{32a^8b^{11}}$

a. $4a^4b^5\sqrt{2}$ b. $16a^4b^5\sqrt{2}$

c. $4a^4b^5\sqrt{2b}$ d. $16a^4b^5\sqrt{b}$

$\sqrt{32}\sqrt{a^8}\sqrt{b^{11}}$
$16a^4b^5\sqrt{b}$

11. Find the y-intercept for the graph $3x - 2y = -6$

a. (0, -3) b. (0, 3)

c. (-2, 0) d, (2, 0)

Method 1, make x = 0
$3(0) - 2y = -6$
$-2y = -6$
$y = 3$

Method 2, solve for y
$-2y = -3x - 6$
$y = \frac{3}{2}x + 3$

12. Find the equation of the line passing through the points (-2, -5) and (0, -4)

a. $x - 2y = 4$ b. $x - 2y = 8$

c. $-2x - 5y = -4$ d. $x + 2y = -8$

Find the slope first
$$\frac{-4 - (-5)}{0 - (-2)} = \frac{1}{2}$$

Use point-slope form
$$y - (-4) = \frac{1}{2}(x - 0)$$
$$y + 4 = \frac{1}{2}x$$
$$-\frac{1}{2}x + y = -4$$
Multiply by -2 to match the answer.
$$x - 2y = 8$$