**PRACTICE PERT TEST – ALGEBRA PORTION**

1. Multiply: 2(x + 3)
2. 2x + 3 B
3. 2x + 6
4. x + 6
5. 2x + 5
6. Simplify by clearing parentheses and combining like terms: 8k – 4(k – 1) + 7 – k
7. 3k + 11 A
8. k – 11
9. k – 3
10. 3k – 11
11. Solve the equation: q – 14 = 6
12. q = 8 C
13. q= -8
14. q = 20
15. q= -20
16. Which of the following is the solution to the equation c + (4 – 3c) – 2 = 0
17. -1 B
18. 1
19. 0
20. 2
21. What is the solution y – 2 > 1
22. (3, infinity) A
23. (-infinity, infinity)
24. (3, -3)
25. [3, infinity)
26. Which of the following is a solution to x² - 6x + 5 = 0?
27. x = -1 B
28. x = 5
29. x = -5
30. x = $\frac{1}{5}$
31. Factor: x² + x – 12

D

1. (x – 6)(x + 2)
2. (x + 6)(x – 2)
3. (x + 3)(x – 4)
4. (x + 4)(x – 3)
5. (x – 4)(x – 3)
6. Simplify the following expression: $\frac{3x⁴y²}{xy²}$
7. 3x²y C
8. 3x⁴y²
9. 3x³
10. 3x⁴y
11. What is the value of the algebraic expression 6x(y²)z, if x = $\frac{1}{2}$, y = -1, and z = 2
12. 1 C
13. 12
14. 6
15. -6
16. Which of the following is equivalent to the expression (3ab)(-5ab)?
17. -2ab C
18. -15ab
19. -15a²b²
20. -2a²b²
21. If $\frac{4a}{2}=12$, then a =?
22. 2 C
23. 1
24. 6
25. 8
26. -2(3x – 4y)
27. 2xy B
28. -6x + 8y
29. -6x – 8y
30. 24xy
31. -6x – 4y
32. If x = 5, then -4x² + 6x – 3 =
33. 427 C
34. -88
35. -73
36. -67
37. -13
38. Simplify: $\frac{n+3}{n^{2}+3n}$
39. $\frac{3}{n+5}$ E
40. $\frac{1}{n+5}$
41. $\frac{1}{n²}$
42. $ \frac{1}{2n}$
43. $\frac{1}{n}$
44. Simplify: (-5x⁶y)(7x⁴y⁵)
45. -35$x^{10}$y⁶ A
46. 35$x^{24}$y⁵
47. 2$x^{10}$y⁶
48. 35$x^{10}$y⁶
49. -35$x^{24}$y⁵
50. (x – 3)² =
51. x² - 3x + 9 C
52. x² + 3x + 9
53. x² - 6x + 9
54. x² - 6x – 9
55. Solve for n: 6 + 5n = t
56. t – 11 E
57. t - $\frac{6}{5}$
58. t + 1
59. $\frac{t+6}{5}$
60. $\frac{t-6}{5}$
61. Evaluate the expression $\frac{3a+2b}{2}$ when a = -3 and b = -4
62. $-\frac{1}{2}$ B
63. $-\frac{17}{2}$
64. $ \frac{1}{2}$
65. $\frac{17}{2}$
66. Evaluate: $\frac{3x-y}{6z-x}$, if x = 1, y = -4, and z = 6
67. $\frac{1}{7}$ C
68. $-\frac{1}{7}$
69. $ \frac{1}{5}$
70. $-\frac{1}{5}$
71. Simplify: 8y – 2 -3(y – 4)
72. 5y + 10 A
73. 11y – 6
74. 5y – 6
75. 5y – 14



1.
2. Write the fraction in lowest terms: $\frac{36a³bc²}{24ab⁴c²}$
3. $\frac{3b³}{2a³}$ C
4. $\frac{2b³}{2a²}$
5. $\frac{3a²}{2b³}$
6. $\frac{2a²}{3b³}$
7. Subtract the polynomials: (9x² - 4x + 11) – (3x² - 2x + 2)
8. 6x² -2x + 13 C
9. 6x² -6x + 13
10. 6x² -2x + 9
11. 6x² -6x + 9
12. (x + 2)(x² - 2x + 4) =
13. x³ - 4x² + 8x + 8 B
14. x³ + 8
15. x³ + 8x + 8
16. x³ + 4x² - 8x + 8
17. Multiply: 2x(3x² - 5x – 3)
18. 6x³ - 10x² - 3x C
19. 6x³ - 5x² - 6x
20. 6x³ - 10x² - 6x
21. 6x³ - 5x - 3



1.

 x + 2x + x + 15 = 100

1. Divide: $\frac{14m^{2}-28m^{8}+7m}{7m}$
2. 2m² - 4m⁸ + m C
3. 2m - 28m⁸ + 7m
4. 2m - 4m⁷ + 1
5. 2m – 4m⁷
6. Which of the following is a factor of 12x⁴ - 20x³ + 4x²
7. 4x⁴ C
8. x – 1
9. 3x² - 5x + 1
10. 3x + 1
11. Factor completely: x² - x - 6
12. (x – 1)(x– 6) D
13. (x – 2)(x + 3)
14. (x + 1)(x – 6)
15. (x + 2)(x – 3)
16. Solve 2x < x – 4 ≤ 3x + 8
17. -6 ≤ x $<$ 4 D
18. -4 ≤ x $< $4
19. -4 ≤ x $<$ 6
20. -6 ≤ x $<$ -4

1. What is the equation of the line shown here?



1. y = -0.5x – 3
2. y = -2x – 3
3. y = 0.5x – 3
4. y = 2x - 3

C

1.  What is the equation of the line shown?
2. x = y – 3
3. x= -3
4. y = x – 3
5. y = -3

D

1. Solve: -2(x + 4) > 1 – 5x
2. x > -3 D
3. x < 3
4. x < -3
5. x > 3
6. Find the x and y intercepts of the equation 3x + 4y = 12
7. (4, 0) and (0, 3) A
8. (0, 3) and (0, 4)
9. (4, 0) and (3, 0)
10. (3, 0) and (0, 4)
11. Find the x and y intercepts of 25x² + 4y² = 9
12. x intercepts are ($ \frac{3}{5}, 0)$ and ($-\frac{3}{5}, 0)$, and y intercepts are (0, $\frac{3}{2}$ ) and (0, - $\frac{3}{2} $) A
13. x intercepts are (5, 0) and (-5, 0) and y intercepts are (0, 3) and (0, -3)
14. x intercepts are ($3, 0)$ and ($-\frac{3}{5}, 0)$, and y intercepts are (0, $3$ ) and (0, - $\frac{3}{2} $)
15. x intercepts are ($ \frac{3}{5}, 0)$ and ($-\frac{3}{5}, 0)$, and there are no y-intercepts