**PRACTICE PERT TEST – ALGEBRA PORTION**

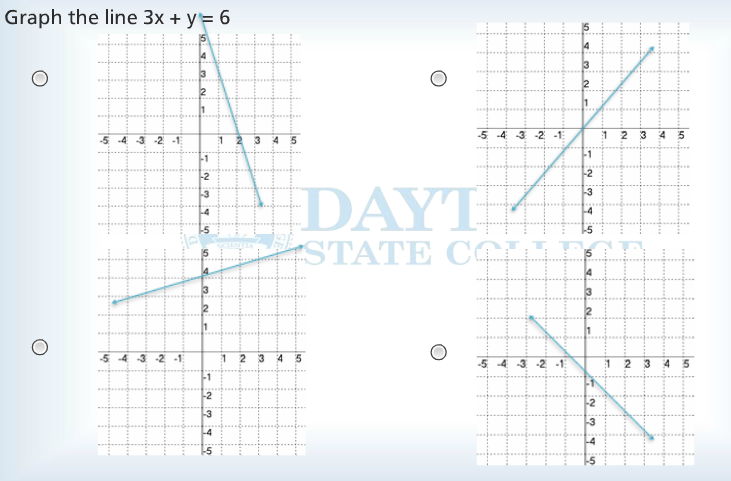
1. Multiply: 2(x + 3)
2. 2x + 3
3. 2x + 6
4. x + 6
5. 2x + 5
6. Simplify by clearing parentheses and combining like terms: 8k – 4(k – 1) + 7 – k
7. 3k + 11
8. k – 11
9. k – 3
10. 3k – 11
11. Solve the equation: q – 14 = 6
12. q = 8
13. q= -8
14. q = 20
15. q= -20
16. Which of the following is the solution to the equation c + (4 – 3c) – 2 = 0
17. -1
18. 1
19. 0
20. 2
21. What is the solution y – 2 > 1
22. (3, infinity)
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
28. x = 5
29. x = -5
30. x =
31. Factor: x² + x – 12
32. (x – 6)(x + 2)
33. (x + 6)(x – 2)
34. (x + 3)(x – 4)
35. (x + 4)(x – 3)
36. (x – 4)(x – 3)
37. Simplify the following expression:
38. 3x²y
39. 3x⁴y²
40. 3x³
41. 3x⁴y
42. What is the value of the algebraic expression 6x(y²)z, if x = , y = -1, and z = 2
43. 1
44. 12
45. 6
46. -6
47. Which of the following is equivalent to the expression (3ab)(-5ab)?
48. -2ab
49. -15ab
50. -15a²b²
51. -2a²b²
52. If , then a =?
53. 2
54. 1
55. 6
56. 8
57. -2(3x – 4y)
58. 2xy
59. -6x + 8y
60. -6x – 8y
61. 24xy
62. -6x – 4y
63. If x = 5, then -4x² + 6x – 3 =
64. 427
65. -88
66. -73
67. -67
68. -13
69. Simplify:


73. Simplify: (-5x⁶y)(7x⁴y⁵)
74. -35y⁶
75. 35y⁵
76. 2y⁶
77. 35y⁶
78. -35y⁵
79. (x – 3)² =
80. x² - 3x + 9
81. x² + 3x + 9
82. x² - 6x + 9
83. x² - 6x – 9
84. Solve for n: 6 + 5n = t
85. t – 11
86. t -
87. t + 1

90. Evaluate the expression when a = -3 and b = -4

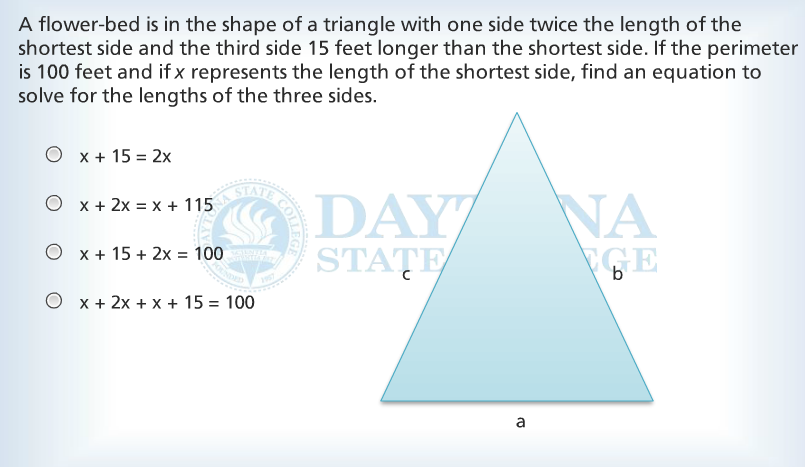


95. Evaluate: , if x = 1, y = -4, and z = 6
97. Simplify: 8y – 2 -3(y – 4)
98. 5y + 10
99. 11y – 6
100. 5y – 6
101. 5y – 14

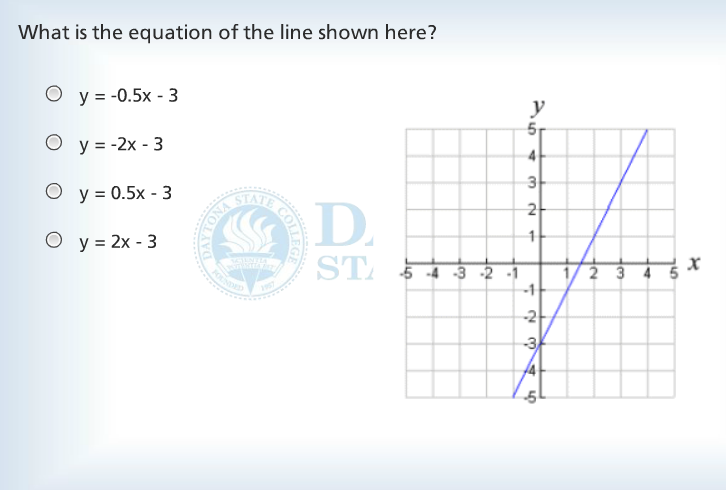


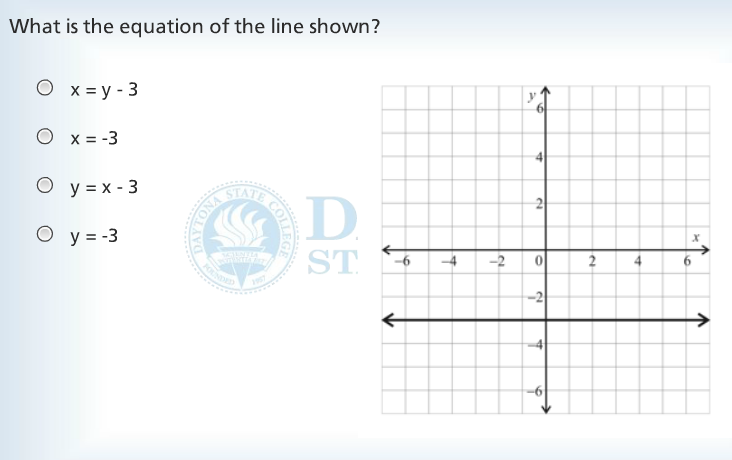
2. Write the fraction in lowest terms:

5. Subtract the polynomials: (9x² - 4x + 11) – (3x² - 2x + 2)
6. 6x² -2x + 13
7. 6x² -6x + 13
8. 6x² -2x + 9
9. 6x² -6x + 9
10. (x + 2)(x² - 2x + 4) =
11. x³ - 4x² + 8x + 8
12. x³ + 8
13. x³ + 8x + 8
14. x³ + 4x² - 8x + 8
15. Multiply: 2x(3x² - 5x – 3)
16. 6x³ - 10x² - 3x
17. 6x³ - 5x² - 6x
18. 6x³ - 10x² - 6x
19. 6x³ - 5x - 3



2. Divide:
3. 2m² - 4m⁸ + m
4. 2m - 28m⁸ + 7m
5. 2m - 4m⁷ + 1
6. 2m – 4m⁷
7. Which of the following is a factor of 12x⁴ - 20x³ + 4x²
8. 4x⁴
9. x – 1
10. 3x² - 5x + 1
11. 3x + 1
12. Factor completely: x² - x - 6
13. (x – 1)(x– 6)
14. (x – 2)(x + 3)
15. (x + 1)(x – 6)
16. (x + 2)(x – 3)
17. Solve 2x < x – 4 ≤ 3x + 8
18. -6 ≤ x 4
19. -4 ≤ x 4
20. -4 ≤ x 6
21. -6 ≤ x -4





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