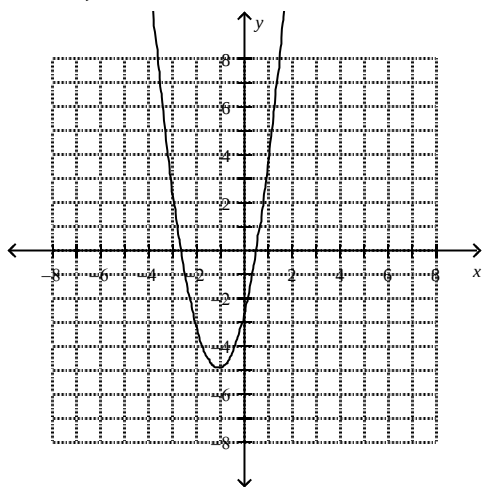
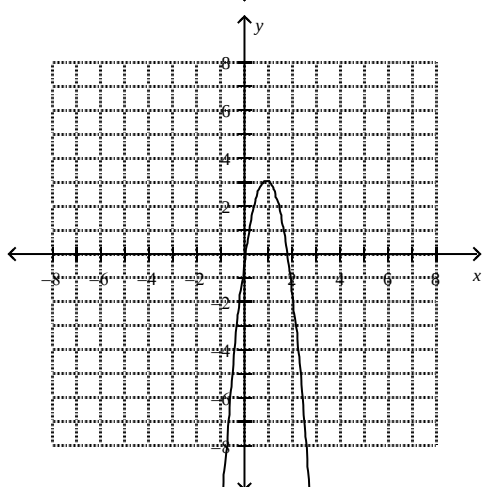


Quadratics Review

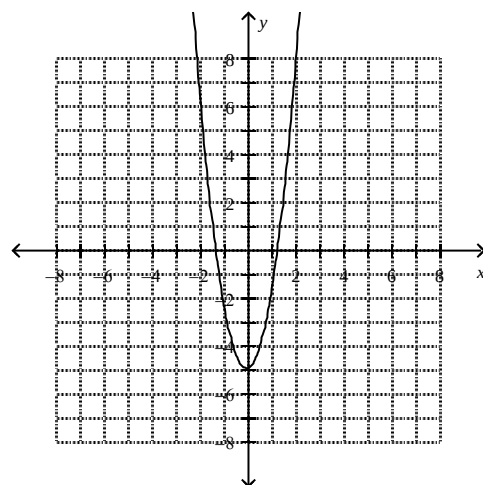
1. linear function
linear term: $5x$ constant term: 2
2. quadratic function
quadratic term: $15x^2$ linear term: $-1x$
constant term: -6
3. $(-4, 3)$, $x = -4$ $P'(-3, 4)$, $Q'(-6, 7)$
4. $(1, 4)$, $x = 1$; $P'(2, 3)$, $Q'(-1, 0)$
5. \$30; 2,395 drills
6. 1,000 units; \$1400
7. $y = 4(x - 3)^2 - 2$
8. $y = -(x + 3)^2 + 2$
9. $y = -3(x + 2)^2 + 5$
10. $y = 3(x + 4)^2 + 4$
11. $y = 4x^2 + 4x - 2$
12. $y = 3x^2 - 4x - 2$
13.
 - a. $P = 0.38x^2 - 2.45x + 5.10$
 - b. 13,830 bacteria



14.

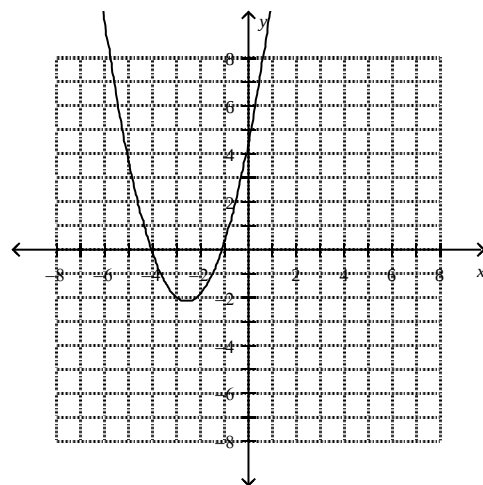


15.



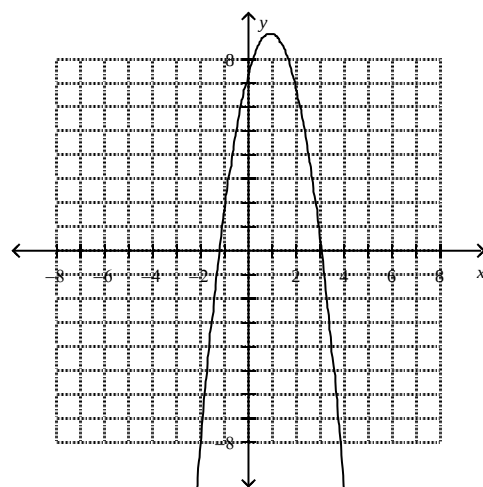
16.

Domain: all real #s ; Range: $y \geq -5$



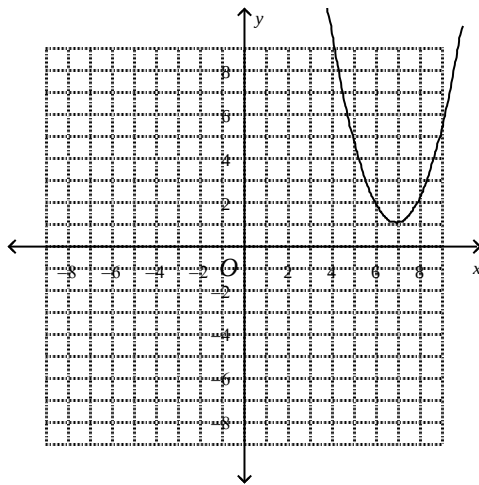
17.

vertex: $\left(-\frac{5}{2}, -\frac{9}{4}\right)$, axis of symmetry: $x = -\frac{5}{2}$



18.

maximum value; 9



19. Domain: all real #s ; Range: $y \geq 1$
20. The parabola opens downward.
The axis of symmetry is the line $x = -1$.
The vertex is the point $(-1, 7)$.
The y-intercept is 4.
21. $x = -1$
22. $3x(7x + 6)$
23. $(x + 10)(x + 9)$
24. $(x + 3)(x + 8)$
25. $(x - 6)(x + 5)$
26. $(3x + 2)(x + 3)$
27. $(4x + 5)(x + 2)$
28. $(5x + 7)(5x - 7)$
29. $y = -3(x + 2)^2 + 4$
30. $y = 2(x + 4)^2 + 2$