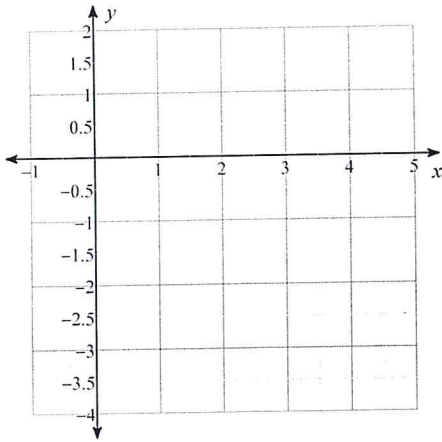


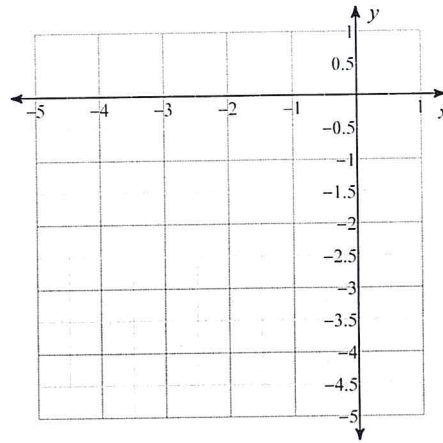
Quadratic Functions & Equations Practice :)

Sketch the graph of each function.

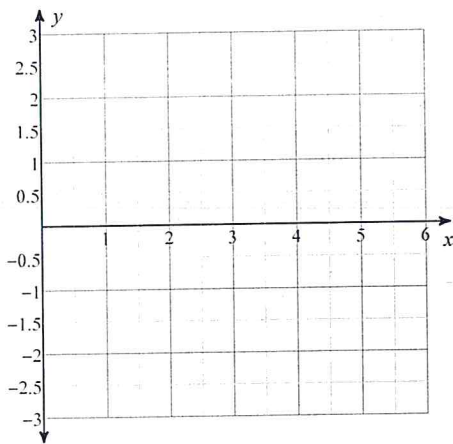
1) $f(x) = (x - 3)^2 - 3$



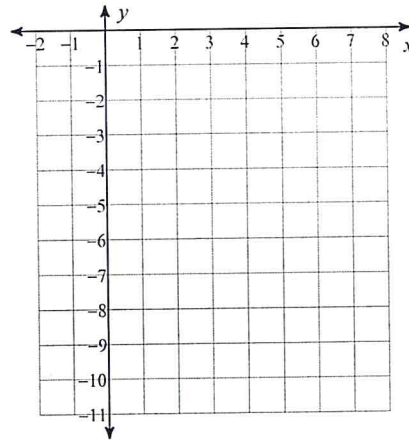
2) $f(x) = (x + 3)^2 - 4$



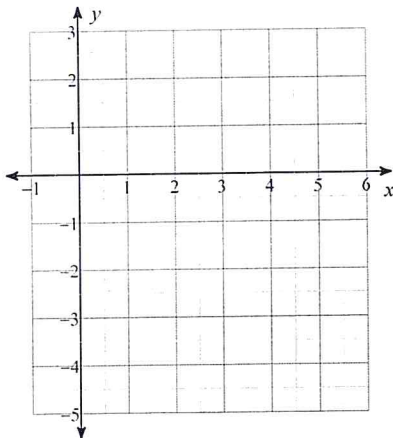
3) $f(x) = -(x - 2)^2 + 2$



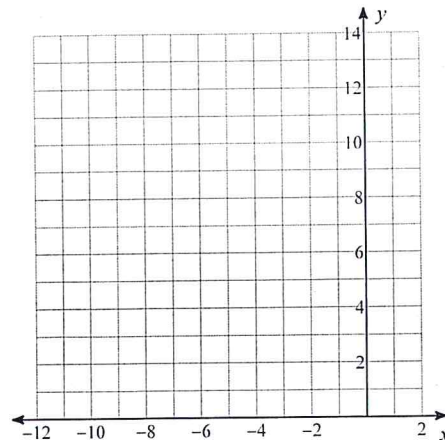
4) $f(x) = -2(x - 3)^2 - 2$



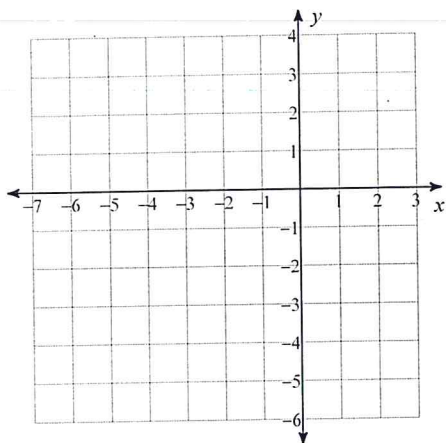
5) $f(x) = -x^2 + 8x - 15$



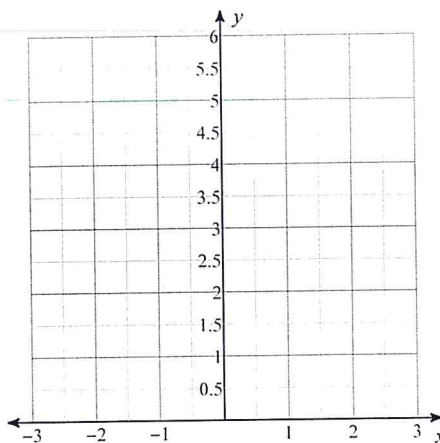
6) $f(x) = 3x^2 + 12x + 13$



7) $f(x) = -2x^2 - 4x + 1$



8) $f(x) = x^2 - 2x + 2$



Solve each equation by factoring.

9) $a^2 - 64 = 0$

10) $2a^2 + 4a - 6 = 0$

11) $4v^2 - 12v - 16 = 0$

12) $3x^2 - 21x + 18 = 0$

13) $4r^2 - 44r + 116 = -4$

14) $n^2 - n - 20 = -8$

15) $b^2 - 10b + 13 = -3$

16) $4p^2 + 36p + 53 = -3$

Solve each equation by taking square roots.

17) $v^2 - 6 = 48$

18) $-6r^2 = -150$

19) $n^2 - 8 = 32$

20) $81v^2 = 100$

21) $-3x^2 = -57$

22) $-4p^2 = -48$

Solve each equation by graphing. Write your answers in decimal form rounded to three decimal places.

23) $x^2 + x + 1 = 9$

24) $x^2 - 13x + 45 = 5$

25) $3x^2 - 4x - 13 = -9$

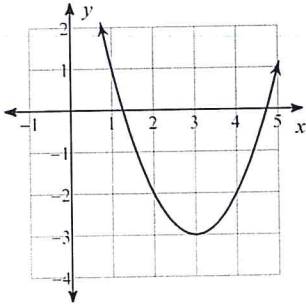
26) $9n^2 - 10n + 9 = 8$

27) $5a^2 + 18a - 8 = 6$

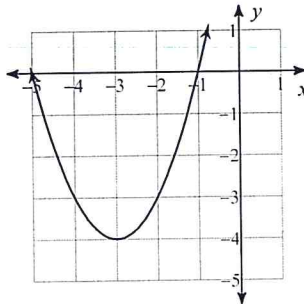
28) $n^2 - 3n - 18 = 10$

Answers to Quadratic Functions & Equations Practice :)

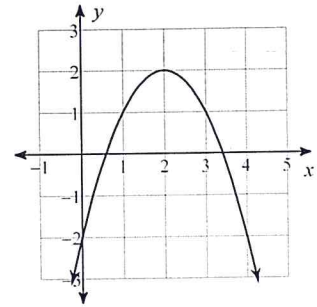
1)



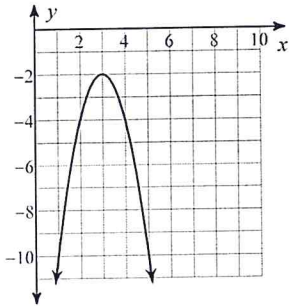
2)



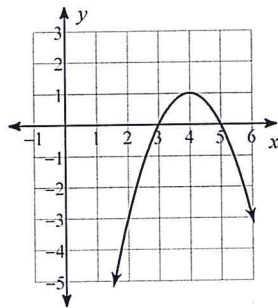
3)



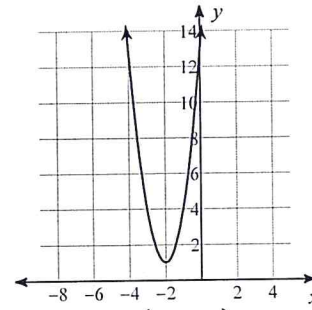
4)



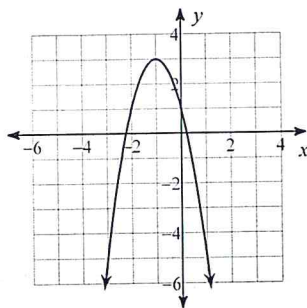
5)



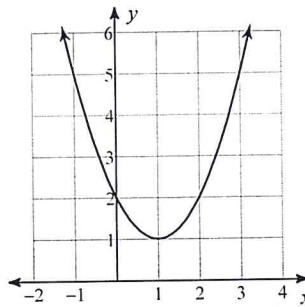
6)



7)



8)



9) $\{8, -8\}$

10) $\{1, -3\}$

11) $\{4, -1\}$

12) $\{6, 1\}$

13) $\{5, 6\}$

14) $\{-3, 4\}$

15) $\{8, 2\}$

16) $\{-2, -7\}$

17) $\{3\sqrt{6}, -3\sqrt{6}\}$

18) $\{5, -5\}$

19) $\{2\sqrt{10}, -2\sqrt{10}\}$

20) $\left\{\frac{10}{9}, -\frac{10}{9}\right\}$

21) $\{\sqrt{19}, -\sqrt{19}\}$

22) $\{2\sqrt{3}, -2\sqrt{3}\}$

23) $\{2.372, -3.372\}$

24) $\{8, 5\}$

25) $\{2, -0.667\}$

26) $\{1, 0.111\}$

27) $\{0.658, -4.258\}$

28) $\{7, -4\}$