

$$x = \frac{-b}{2a}$$

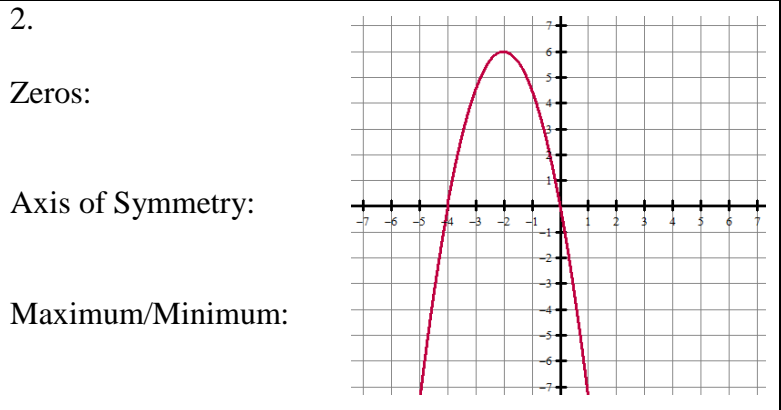
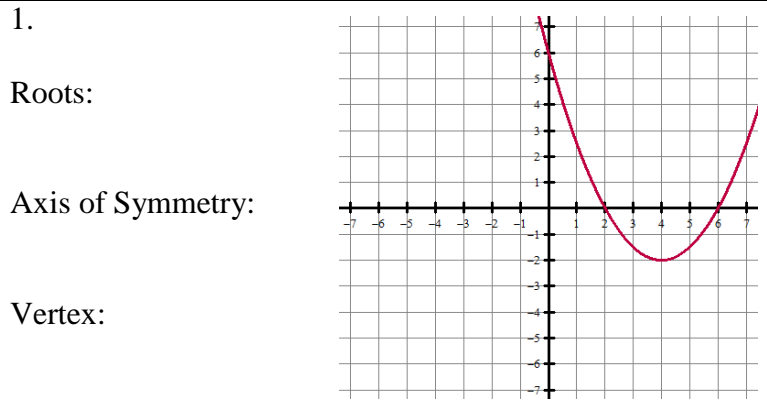
NAME: _____

CORRECTIVE ASSIGNMENT

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

DATE: _____

Use the graph to answer the following



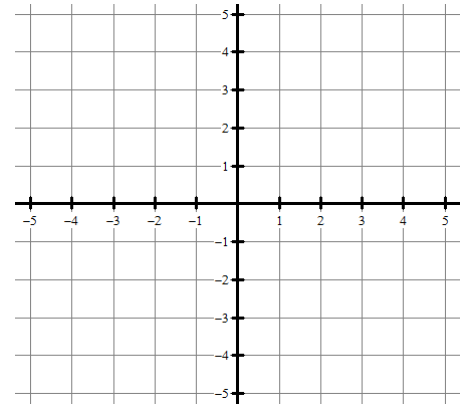
Fill in the table, find the axis of symmetry, find the vertex, and graph the quadratic.

3. $y = -2x^2 - x + 4$

Axis of symmetry:

Vertex:

x	y
-2	
-1	
0	
1	
2	

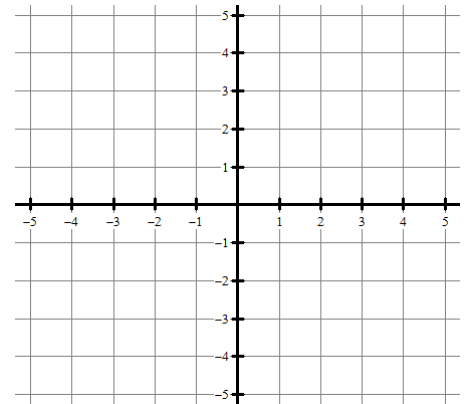


4. $y = \frac{1}{2}x^2 + 2x - 1$

Axis of symmetry:

Vertex:

x	y
-4	
-3	
-2	
-1	
0	



Solve each quadratic by graphing. Express your answer as a decimal. Round to the nearest hundredth.

5. $0 = 2x^2 - 3x - 5$

6. $10 = \frac{3}{4}x^2 - 7x + 22$

7. $-3x^2 - 5x = 6$

Solve each quadratic using square roots. Express your answer in simplest radical form.

8. $4t^2 - 15 = 201$

9. $20 = \frac{n^2}{2} + 6$

10. $8 - p^2 = -11$

Solve each quadratic using the quadratic formula. Express your answer in simplest radical form.

11. $4k^2 - 8k - 9 = 0$

12. $42 = 3n^2 + 5n$

13. $12x^2 + x - 8 = -3$

Express the following as decimals. Round to the nearest hundredth.

14. $\frac{10 \pm \sqrt{539}}{6}$

15. $\frac{4 \pm \sqrt{576}}{2}$

16. $\frac{-7 \pm \sqrt{328}}{12}$

MULTIPLE CHOICE. Chose the correct answer.

17. Find the zeros of $f(x) = 3x^2 + 4x - 3$

- A) $x = -0.535$ and 1.869
- B) $x = -4.646$ and 0.646
- C) $x = -0.646$ and 4.646
- D) $x = -1.869$ and 0.535
- E) $x = -0.667$ and -4.333


18. Solve $2p^2 = -5p + 8$

- A) $p = \frac{-5}{18} \pm \frac{\sqrt{313}}{18}$
- B) $p = \frac{5}{18} \pm \frac{\sqrt{313}}{18}$
- C) $p = \frac{-5}{18} \pm \frac{\sqrt{97}}{18}$
- D) $p = \frac{-5}{2} \pm \frac{\sqrt{57}}{2}$
- E) No Solution

APPLICATION

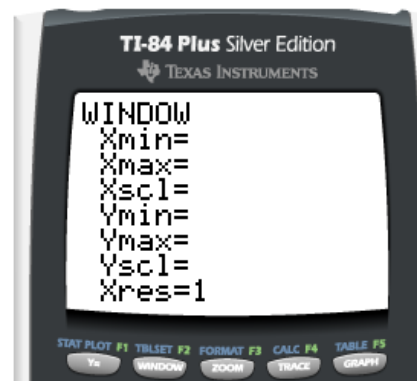
19. Mr. Sullivan throws a baseball straight up into the air. The function shows the height of the ball over time.

$$s(t) = -16t^2 + 42t + 7 \text{ where } t \text{ is time in seconds and } s \text{ is height of the ball in feet}$$

a. Graph with a “friendly” window. Record window here. 

b. Fill in the table.

t	$s(t)$
1	
2	
	15




c. What is the maximum height of the ball?

d. When will the ball hit the ground?

e. What does $s(1.5)$ mean? Find it!

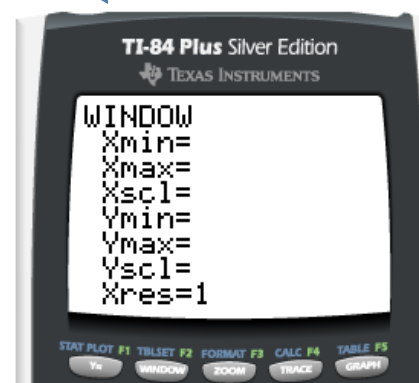
20. The following function represents the percent of Mr. Kelly’s back that is covered in hair over time since 2005.

$$P = 0.75t^2 - 5t + 45 \text{ where } t \text{ is time since 2005 and } P \text{ is percent of back that is covered by hair}$$

a. Graph with a “friendly” window that shows through 2015. Record window here 

b. What percent of Mr. Kelly’s back is covered in hair in 2012?

c. What is the least percent of back hair Mr. Kelly has?

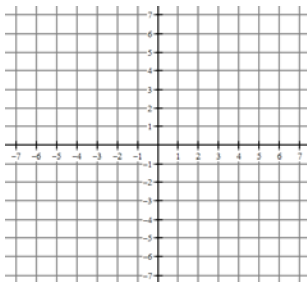


d. At what time(s) will Mr. Kelly’s back be 42% covered in hair?

SKILLZ REVIEW

GRAPH

1. $2x - 3y = 6$



FACTOR

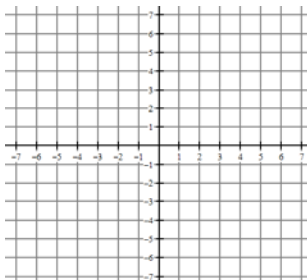
2. $x^2 - 6x - 27$

RADICALS

3. Simplify

$$\sqrt{50}$$

4. $y = 2$



5. $x^3 + 7x^2 - 30x$

6. Simplify

$$\frac{\sqrt{5}}{\sqrt{2}}$$

ANSWERS TO UNIT 12 CORRECTIVE ASSIGNMENT

1. Roots: $x = 2$ and 6

Axis of Symmetry:
 $x = 4$

Vertex: $(4, -2)$

2. Zeros: $x = -4$ and 0

Axis of Symmetry:
 $x = -2$

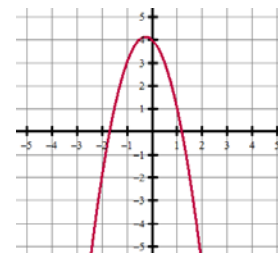
Max: $(-2, 6)$

3. Axis of Symmetry:

$$x = -\frac{1}{4} = -0.25$$

Vertex:
 $(-0.25, 4.125)$

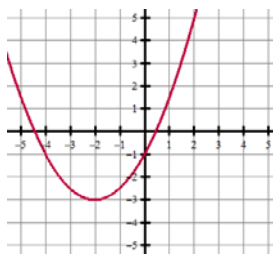
x	y
-2	-2
-1	3
0	4
1	1
2	-6



4. Axis of Symmetry:
 $x = -2$

Vertex: $(-2, -3)$

x	y
-4	
-3	
-2	
-1	
0	



5. -1 and 2.5

6. 2.26 and 7.07

7. No Solution

8. $t = \pm 3\sqrt{6}$

9. $n = \pm 2\sqrt{7}$

10. $p = \pm\sqrt{19}$

11. $k = 1 \pm \frac{\sqrt{13}}{2}$

12. $n = 3$ and $-\frac{14}{3}$

13. $k = -\frac{1}{24} \pm \frac{\sqrt{241}}{24}$

14. -2.2 and 5.54

15. -10 and 14

16. -2.09 and 0.93

17. D

18. A

19. a.
WINDOW
Xmin=0
Xmax=4
Xscl=1
Ymin=0
Ymax=40
Yscl=5
Xres=1

b.

t	s(t)
1	33
2	27
2.42	15
0.21	

c. 34.56 ft

d. 2.78 sec

e. height of the ball at 1.5 seconds is 34 ft

20. a.

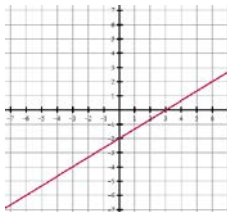
WINDOW
Xmin=0
Xmax=10
Xscl=1
Ymin=0
Ymax=100
Yscl=10
Xres=1

b. 46.75%

c. $36.\bar{6}\%$

d. 6 years after 2005
so 2011 and $0.\bar{6}$ years
after 2005 so $2005.\bar{6}$

1. SKILLZ REVIEW



2. $(x - 9)(x + 3)$

3. $5\sqrt{2}$

5. $x(x + 10)(x - 3)$

6. $\frac{\sqrt{10}}{2}$

4.

