

AGENDA

- 1) Take out HW to be checked
("*Factoring and Graphing Practice*" worksheet)
- 2) DO NOW - concept review
- 3) HW questions??
- 4) Stations: Factoring/Solving/Graphing Review

HW: Finish Stations #3 & 4 worksheets
QUIZ Friday

DO NOW: Choose the best answer for each problem

_____ 1. Which of the following is NOT a quadratic function?

- A. $y = -7x(5+x)$
- B. $y = 4x^2 + 1 - 2x^3$
- C. $y = 12.5 - 9.2x^2$
- D. $y = (x-6)^2$

_____ 2. What is the y-intercept of $f(x) = 9x^2 + 5x - 8$?

- A. $5x$
- B. 5
- C. 8
- D. -8

_____ 3. If the roots (or zeros) of the parabola are (1,0) and (5,0), then the axis of symmetry is:

- A. $x = 1$
- B. $y = 5$
- C. $x = 3$
- D. $y = 3$

_____ 4. The vertex of a parabola is at (-9,-2). The parabola:

- A. Opens up
- B. Opens down
- C. Opens right
- D. Not enough information to know

_____ 5. If (9,11) is a point on the parabola with an axis of symmetry $x=6$, use symmetry to find another point on the parabola. That point would be:

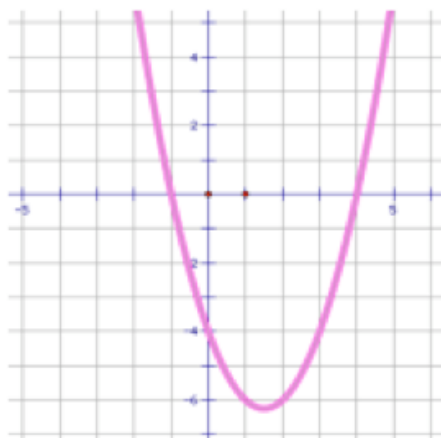
- A. (3,9)
- B. (3,11)
- C. (6,6)
- D. (6,11)

_____ 6. A quadratic in standard form is $ax^2+bx + c$.

- A. Given $4x^2-2x + 3$ $a =$ _____, $b =$ _____, $c =$ _____
- B. $y = (x-3)(x+2)$ $a =$ _____, $b =$ _____, $c =$ _____
- C. $y = 4(x^2 - 5x)+1$ $a =$ _____, $b =$ _____, $c =$ _____

_____ 7. Which of the following could be the equation of the parabola in the figure?

- A. $y = (x-1)(x-4)$
- B. $y = (x-1)(x+4)$
- C. $y = (x+1)(x-4)$
- D. $y = (x+1)(x+4)$



***HW: Finish Stations #3 & 4 worksheets
QUIZ Friday***

Station 1:

Solve for the ROOTS/ ZEROS/ X- Intercepts of the quadratic equations

1) $(3n - 2)(4n + 1) = 0$

2) $m(m - 3) = 0$

3) $(4k + 5)(k + 1) = 0$

4) $(2m + 3)(4m + 3) = 0$

5) $(k + 1)(k - 5) = 0$

6) $(a + 1)(a + 2) = 0$

7) $(5n - 1)(n + 1) = 0$

8) $(n + 2)(2n + 5) = 0$

Station 2:

Rearrange... Factor.

Solve for the ROOTS/ ZEROS/ X- Intercepts of the quadratic equations

1) $3k^2 + 72 = 33k$

2) $n^2 = -18 - 9n$

3) $7v^2 - 42 = -35v$

4) $k^2 = -4k - 4$

5) $x^2 - 11x + 19 = -5$

6) $n^2 + 7n + 15 = 5$

7) $n^2 - 10n + 22 = -2$

8) $n^2 + 3n - 12 = 6$

Station 3:

Factor.

Then, write the letter of the answer that matches the problem.

_____ 1. $x^2 - 29x = 0$

a. $x = 0$ or $x = 41$

_____ 2. $m^2 + 18m + 81 = 0$

b. $a = +8$ or $a = +4$

_____ 3. $f^2 + 33f = 0$

c. $h = 0$ or $h = -47$

_____ 4. $q^2 + 3q - 70 = 0$

d. $x = 0$ or $x = 37$

_____ 5. $x^2 - 41x = 0$

e. $m = 9$ or $m = 9$

_____ 6. $a^2 - 12a + 32 = 0$

f. $f = 0$ or $f = -33$

_____ 7. $h^2 + 47h = 0$

g. $p = -1$ or $p = -4$

_____ 8. $p^2 - 16p + 63 = 0$

h. $x = 0$ or $x = 29$

_____ 9. $x^2 - 37x = 0$

i. $q = -10$ or $q = +7$

_____ 10. $p^2 + 5p + 4 = 0$

j. $p = +7$ or $p = +9$

Station 4:

Factor the quadratic function to answer the questions.
Then graph the parabola.

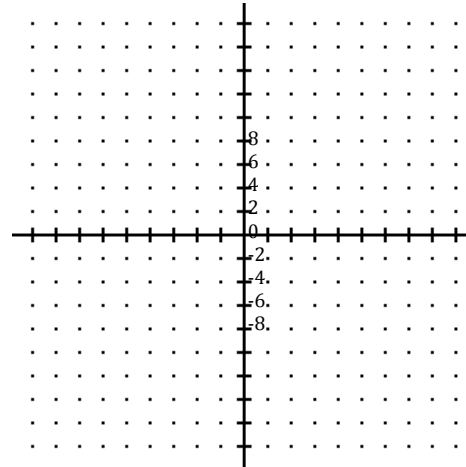
1) $y = x^2 + 2x - 15$

y - intercept: (____,____)

roots: (____,____) (____,____)

Axis of Symmetry: _____

Vertex: (____,____)



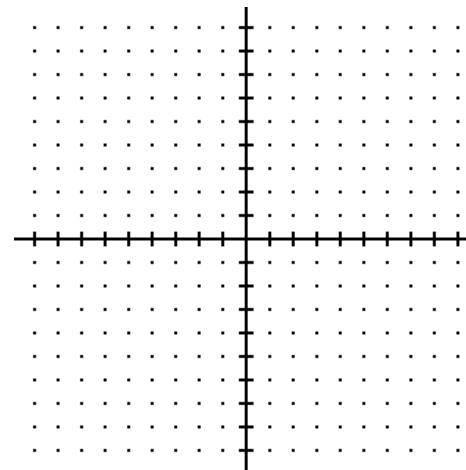
2) $y = x^2 - 6x + 8$

y - intercept: (____,____)

roots: (____,____) (____,____)

Axis of Symmetry: _____

Vertex: (____,____)



3) $y = x^2 + 4x$

y - intercept: (____,____)

roots: (____,____) (____,____)

Axis of Symmetry: _____

Vertex: (____,____)

