

READY, SET, GO!

Name _____

Period _____

Date _____

READY

Topic: Recognizing Quadratic Equations

Identify whether or not each equation represents a quadratic function. Explain how you knew it was a quadratic.

1. $x^2 + 13x - 4 = 0$

Quadratic or no?

Justification:

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

Quadratic or no?

Justification:

3. $x(4x - 5) = 0$

Quadratic or no?

Justification:

4. $(2x - 7) + 6x = 10$

Quadratic or no?

Justification:

5. $2^x + 6 = 0$

Quadratic or no?

Justification:

6. $32 = 4x^2$

Quadratic or no?

Justification:

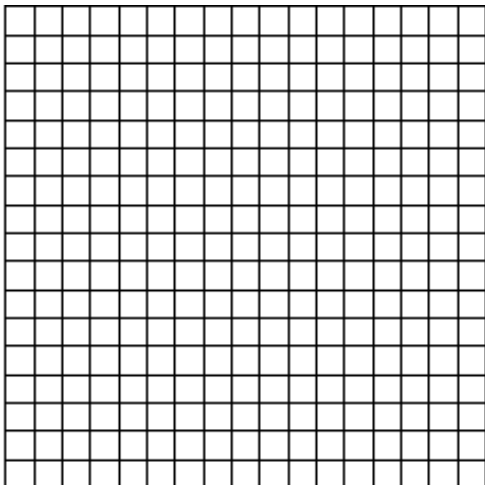
SET

Topic: Changing from standard form of a quadratic to vertex form.

Change the form of each equation to vertex form: $y = a(x - h)^2 + k$. State the vertex and graph the parabola. Show at least 3 accurate points on each side of the line of symmetry.

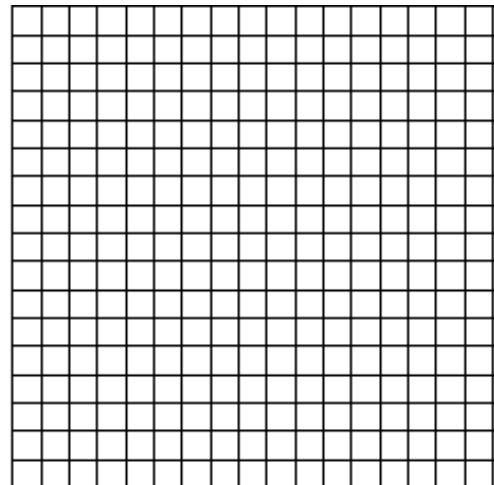
7. $y = x^2 - 4x + 1$

vertex:



8. $y = x^2 + 2x + 5$

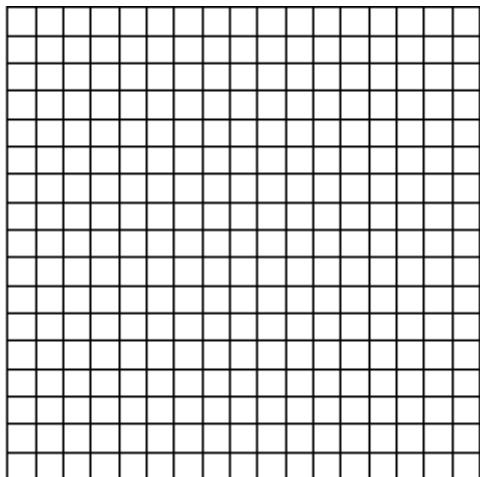
vertex:



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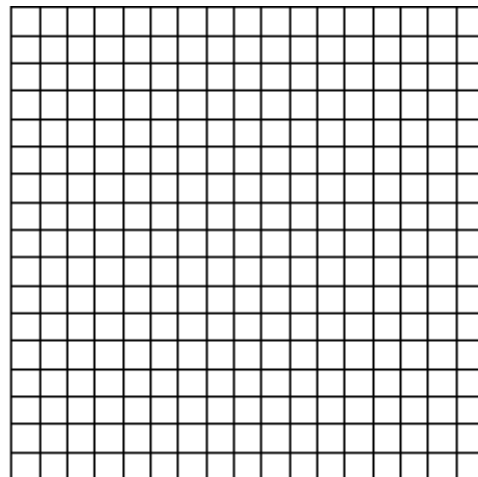
9. $y = x^2 + 3x + \frac{13}{4}$

vertex:



10. $y = \frac{1}{2}x^2 - x + 5$

vertex:



11. One of the parabolas in problems 9 – 10 should look “wider” than the others. Identify the parabola. Explain why this parabola looks different.

Fill in the blank by completing the square. Leave the number that completes the square as an improper fraction. Then write the trinomial in factored form.

12. $x^2 - 11x + \underline{\hspace{1cm}}$

13. $x^2 + 7x + \underline{\hspace{1cm}}$

14. $x^2 + 15x + \underline{\hspace{1cm}}$

15. $x^2 + \frac{2}{3}x + \underline{\hspace{1cm}}$

16. $x^2 - \frac{1}{5}x + \underline{\hspace{1cm}}$

17. $x^2 - \frac{3}{4}x + \underline{\hspace{1cm}}$

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GO

Topic: Writing recursive equations for quadratic functions.

Identify whether the table represents a linear or quadratic function. If the function is linear, write both the explicit and recursive equations. If the function is quadratic, write only the recursive equation.

18.

x	$f(x)$
1	0
2	3
3	6
4	9
5	12

Type of function:

Equation(s):

19.

x	$f(x)$
1	7
2	10
3	16
4	25
5	37

Type of function:

Equation(s):

20.

x	$f(x)$
1	8
2	10
3	12
4	14
5	16

Type of function:

Equation(s):

21.

x	$f(x)$
1	28
2	40
3	54
4	70
5	88

Type of function:

Equation(s):

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