16 $x^2 - 10x + 15 = 0$

"I can't factor..."

-10, 15

$a = 1 \quad b = -10 \quad c = 15$

40 → 4, 10

$$x = \frac{10 \pm \sqrt{100 - 4(1)(15)}}{2(1)}$$

2.6

$$= \frac{10 \pm \sqrt{100 - 60}}{2} = \frac{10 \pm \sqrt{40}}{2}$$

$$= \frac{10 \pm 2\sqrt{10}}{2} = 5 \pm \sqrt{10}$$

Solve each equation by using the Quadratic Formula. Round to the nearest tenth if necessary.

15. $x^2 - x - 30 = 0$ **−5, 6**
16. $x^2 - 10x = -15$ **1.8, 8.2**
17. $2x^2 + x - 15 = 0$ **2.5, −3**

"I can factor..."

15 -1, 5, -6, -30

$(x - 6)(x + 5) = 0$

$x - 6 = 0$ | $x + 5 = 0$

$x = 6$ | $-5 \quad -5$

$x = 5$

iswer

(1) $x = \frac{-b}{2a} = \frac{-2}{2(1)} = -1$

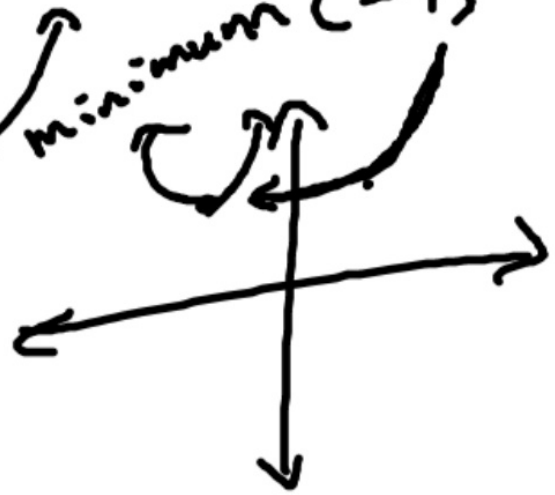
$y = (-1)^2 + 2(-1) + 5$

$= 1 - 2 + 5 = 4$

vertex $(-1, 4)$

minimum

$a = 1$



D: all real #'s.

R: $y \geq 4$

4. State the maximum or minimum value. **−6.25**

5. What are the domain and range?
D = {all real numbers}; R = {y | y ≥ −6.25}

Solve each equation by graphing. If integral roots cannot be found, estimate the roots to the nearest tenth.

6. $x^2 + 7x + 10 = 0$ **−5, −2**

7. $x^2 - 5 = -3x$ **−4.2, 1.2**

Describe how the graph of each functi

the ball in the air? **about 3.8 seconds**

19. Graph {(−2, 4), (−1, 1), (0, 0), (1, 1), (2, 4)}. Determine whether the ordered pairs repre *linear function*, a *quadratic function*, or an *exponential function*. **See margin.**

20. Look for a pattern in the table to determine which kind of model best describes the dat

x	0	1	2	3	4
y	1	3	5	7	9