

Factor each completely.

$$7) \underline{8x^3} + \underline{56x^2} + \underline{98x} = 0$$

$$2x \quad 2x \quad 2x$$

$$2x (4x^2 + 28x + 49) = 0$$

$$2x (4x^2 + 14x + 14x + 49) = 0$$

$$2x \left[2x(2x+7) + 7(2x+7) \right] = 0$$

$$2x (2x+7) (2x+7)$$

$$S.S. = \left\{ -\frac{7}{2}, -\frac{7}{2} \right\}$$

Either $2x+7=0$ or $2x+7=0$

$$\frac{2x}{2} = \frac{-7}{2}$$

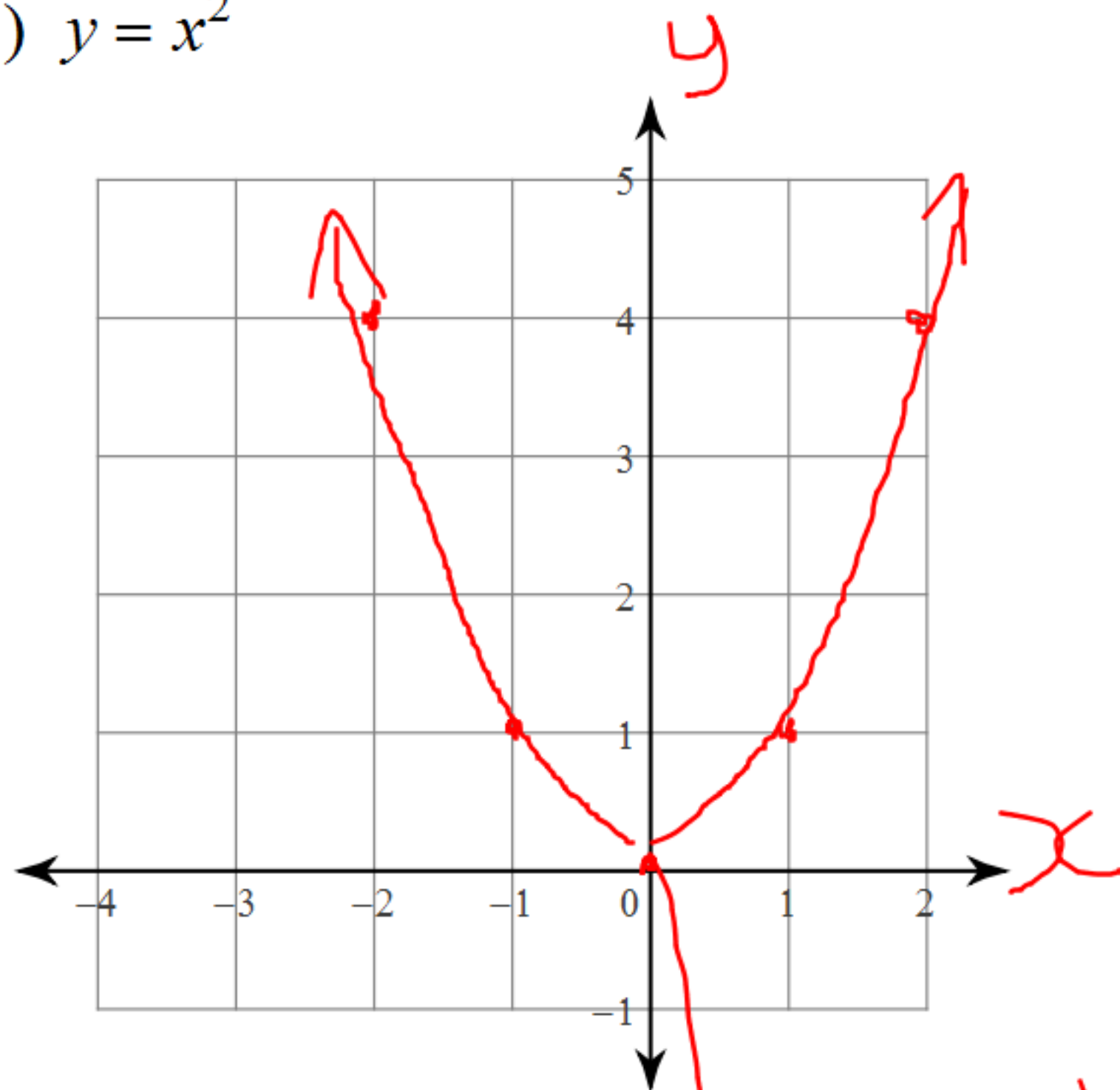
$$x = -\frac{7}{2}$$

$$\frac{2x}{2} = \frac{-7}{2}$$

$$x = -\frac{7}{2}$$

$$\begin{array}{r} \textcircled{\times} 196 \\ \textcircled{+} 28 \end{array} (14, 14)$$

1) $y = x^2$



Vertex (0, 0)

$$y = x^2$$

x	y
2	4
1	1
0	0
-1	1
-2	4

- ☒ Question numbers ☐ Show answers
☒ Directions ☒ Changing questions hides answers
☒ Lines Zoom:

More like these

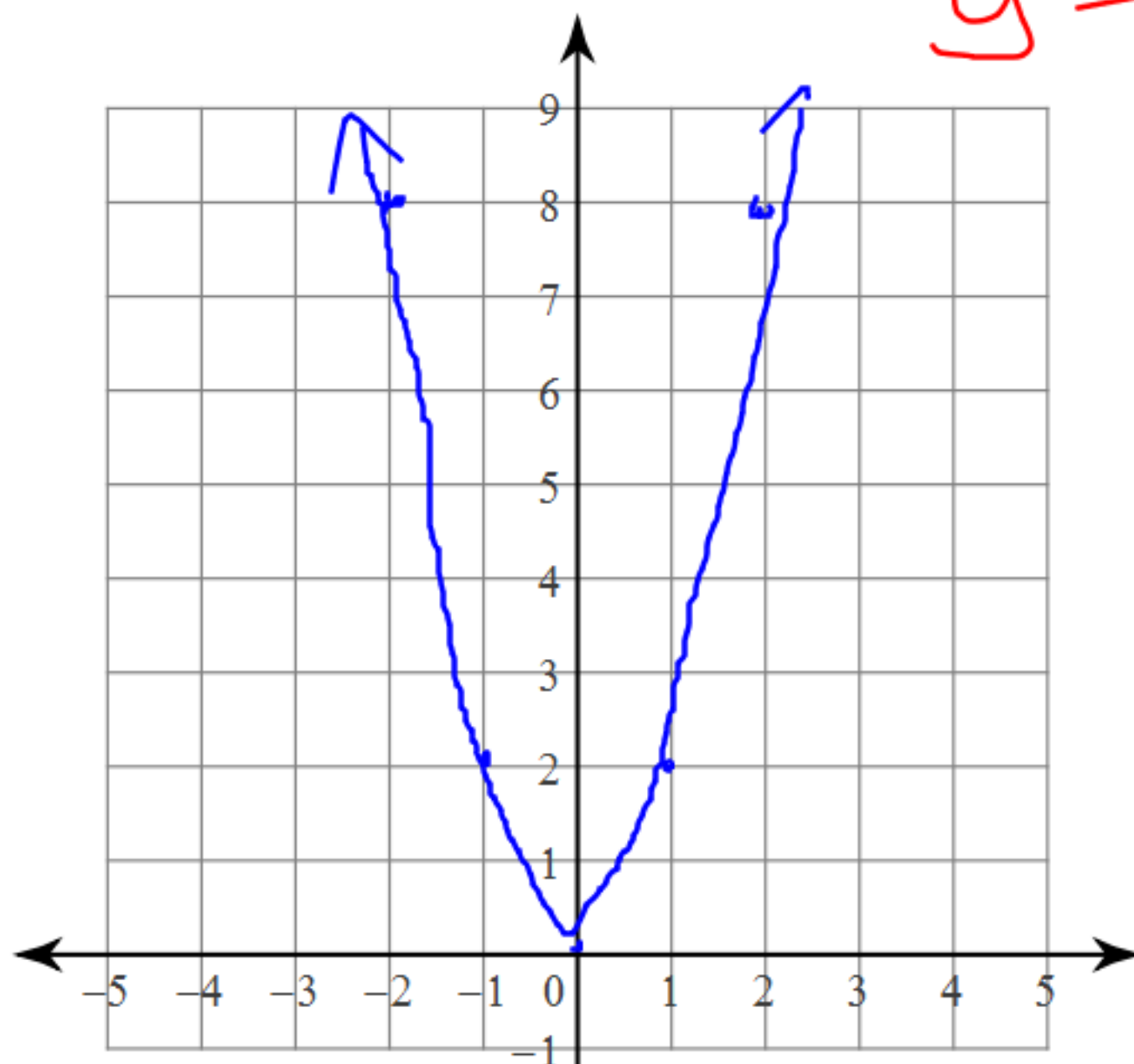


Jump



1-up

2) $y = 2x^2$



vertex (0, 0)

$y = 2x^2$

x	y
2	8
1	2
0	0
-1	2
-2	8

- ☒ Question numbers ☐ Show answers
☒ Directions ☒ Changing questions hides answers
☒ Lines Zoom:

More like these

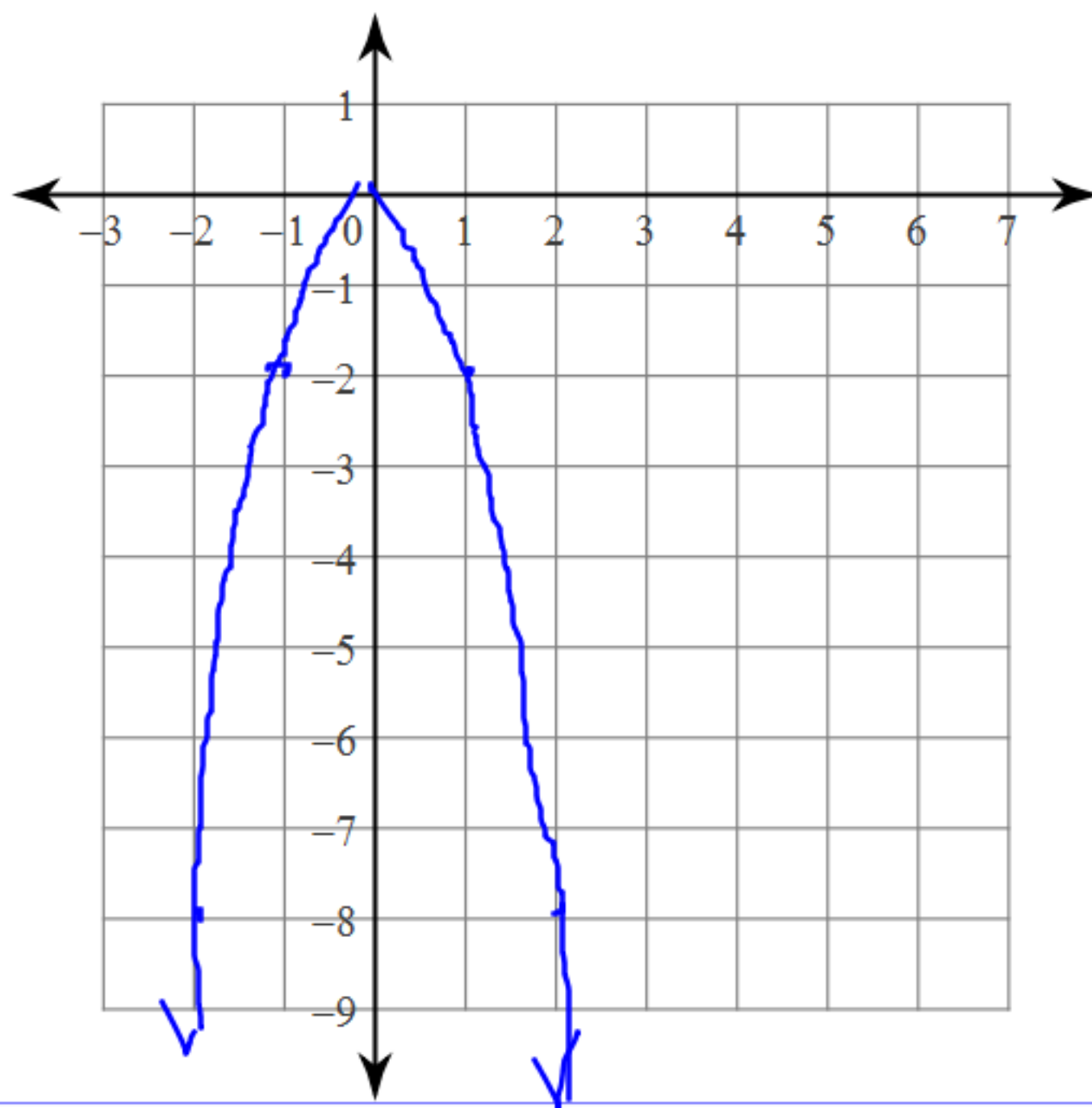


Jump



1-up

3) $y = -2x^2$



x	y
2	-8
1	-2
0	0
-1	-2
-2	-8

vertex = (0, 0)

Factor each completely.

9) $10m^2 - 31m - 36 = 0$

$\otimes -360$

$\oplus -31$

$(40, 9)$

$10m^2 - 40m + 9m - 36 = 0$

$10m(m - 4) + 9(m - 4) = 0$

$(m - 4)(10m + 9) = 0$

Either $m - 4 = 0$ or $10m + 9 = 0$
 $m = 4$

$10m + 9 = 0$
 $10m = -9$
 $m = \frac{-9}{10}$

S. S. = $\left\{4, -\frac{9}{10}\right\}$

Factor each completely.

$\begin{pmatrix} \times \\ + \end{pmatrix} \begin{matrix} 12 \\ -7 \end{matrix} \quad (-3, -4)$

10) $\frac{36x^2}{6} - \frac{42x}{6} + \frac{12}{6} = 0$

$6(6x^2 - 7x + 2) = 0$

Either $2x - 1 = 0$ or $3x - 2 = 0$

$6(6x^2 - 3x - 4x + 2) = 0$

$\frac{2x}{2} = \frac{1}{2}$
 $x = \frac{1}{2}$

$\frac{3x}{3} = \frac{2}{3}$
 $x = \frac{2}{3}$

$6[3x(2x - 1) - 2(2x - 1)] = 0$

$6(2x - 1)(3x - 2) = 0$

S.S. = $\left\{ \frac{1}{2}, \frac{2}{3} \right\}$

Factor each completely.

$\begin{array}{r} \textcircled{\times} -144 \\ \textcircled{+} -45 \end{array}$

$(-48, 3)$

11) $8v^2 - 45v - 18 = 0$

$\underbrace{8v^2 - 48v}_{8v} + \underbrace{3v - 18}_3 = 0$

Homework:
Quiz warmup

$8v(v-6) + 3(v-6) = 0$

QUIZ tomorrow

$(v-6)(8v+3) = 0$

Either

$v-6 = 0$ or $8v+3 = 0$
 $v = 6$ or $v = -\frac{3}{8}$

$v = -\frac{3}{8}$

S.S. = $\left\{ 6, -\frac{3}{8} \right\}$