Problem 1 of 6

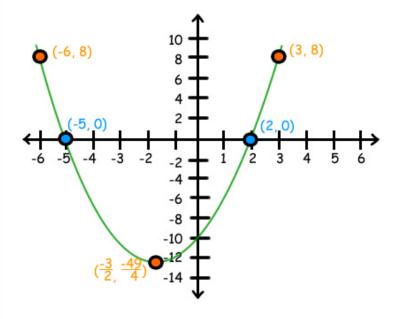
Questions? Ask a live tutor now! Ask Question

Solve $x^2 + 3x - 10 = 0$ by graphing.

Question

Answer

X	$y = x^2 + 3x - 10$
-6	$y = (-6)^2 + 3(-6) - 10 = 8$
-5	$y = (-5)^2 + 3(-5) - 10 = 0$
- <u>3</u> 2	$y = (\frac{-3}{2})^2 + 3(\frac{-3}{2}) - 10 = \frac{-49}{4}$
2	$y = (2)^2 + 3(2) - 10 = 0$
3	$y = (3)^2 + 3(3) - 10 = 8$



$$x = -5 \text{ or } x = 2$$

11. Quadratic equations

<u>Graphing quadratic equations</u> <u>Vertex</u>

Solving quadratic equations ...
Solving quadratic equations ...

Completing squares

Solving quadratic equations ...

Transformations of Quadratic...

Problem 2 of 6

Question

Questions?
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Ask Question

Solve $x^2 - 5x + 3 = 0$ by graphing.

Answer

×	$y = x^2 - 5x + 3$
-1	$y = (-1)^2 - 5(-1) + 3 = 9$
0	$y = (0)^2 - 5(0) + 3 = 3$
52	$y = (\frac{5}{2})^2 - 5(\frac{5}{2}) + 3 = \frac{-13}{4}$
5	$y = (5)^2 - 5(5) + 3 = 3$
6	$y = (6)^2 - 5(6) + 3 = 9$

(-1,9) $\begin{pmatrix} 4 \\ 2 \\ (0,3) \\ -6 \\ -5 \\ -4 \\ -6 \\ -8 \\ -10 \end{pmatrix}$ (5,3) (5,3) (5,3) (5,3) (4.3,0) (5,3) (5,3) (5,3)

x = 0.7, 4.3 (Approximate)

11. Quadratic equations

Graphing quadratic equations
Vertex

Solving quadratic equations ...
Solving quadratic equations ...
Completing squares

Solving quadratic equations ...

Transformations of Quadratic...

Problem 3 of 6

Question

Questions? Ask a live tutor now! Ask Question

Solve $5x^2 - 6x + 10 = 0$ by graphing.

Answer

×	$y = 5x^2 - 6x + 10$
-1	$y = 5(-1)^2 - 6(-1) + 10 = 21$
0	$y = 5(0)^2 - 6(0) + 10 = 10$
3 5	$y = 5(\frac{3}{5})^2 - 6(\frac{3}{5}) + 10 = \frac{41}{5}$
1	$y = 5(1)^2 - 6(1) + 10 = 9$
2	$y = 5(2)^2 - 6(2) + 10 = 18$

$(-1, 21) \underbrace{\begin{array}{c} 25 \\ 15 \\ (0, 10) 10 \\ 5 \\ \end{array}}_{-6 \ -5 \ -4 \ -3 \ -2 \ -5 \\ -10 \\ -15 \\ -20 \\ -25 \\ \end{array}}_{-20} \underbrace{\begin{array}{c} (2, 18) \\ (1, 9) \\ (\overline{5}, \overline{5}) \\ \end{array}}_{1 \ 2 \ 3 \ 4 \ 5 \ 6}$

No solution

11. Quadratic equations

Graphing quadratic equations
Vertex

Solving quadratic equations ...
Solving quadratic equations ...

Completing squares

Solving quadratic equations ...

Transformations of Quadratic...

Problem 4 of 6

Questions? Ask a live tutor now Ask Question

Solve $-10x^2 + 5x - 3 = 0$ by graphing.

Question

Answer

×	$y = -10x^2 + 5x - 3$
-1	$y = -10(-1)^2 + 5(-1) - 3 = -18$
0	$y = -10(0)^2 + 5(0) - 3 = -3$
1/4	$y = -10(\frac{1}{4})^2 + 5(\frac{1}{4}) - 3 = \frac{-19}{8}$
1	$y = -10(1)^2 + 5(1) - 3 = -8$
2	$y = -10(2)^2 + 5(2) - 3 = -33$

No solution

11. Quadratic equations

Graphing quadratic equations
Vertex

Solving quadratic equations ...
Solving quadratic equations ...

Completing squares

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Solving quadratic equations ...

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Problem 5 of 6

Solve $-3x^2 + 4x - 10 = 0$ by graphing.

Questions?
Ask a live tutor now!

Ask Question

11. Quadratic equations

<u>Graphing quadratic equations</u> <u>Vertex</u>

Solving quadratic equations ...
Solving quadratic equations ...
Completing squares

Solving quadratic equations ...

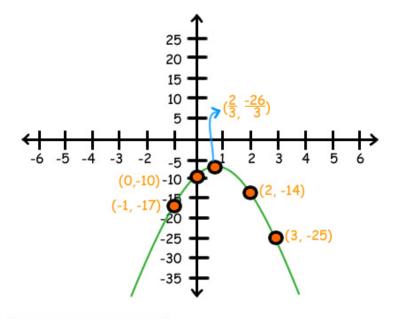
Transformations of Quadratic...

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Question	

Answer

×	$y = -3x^2 + 4x - 10$
-1	$y = -3(-1)^2 + 4(-1) - 10 = -17$
0	$y = -3(0)^2 + 4(0) - 10 = -10$
<u>2</u> 3	$y = -3(\frac{2}{3})^2 + 4(\frac{2}{3}) - 10 = \frac{-26}{3}$
2	$y = -3(2)^2 + 4(2) - 10 = -14$
3	$y = -3(3)^2 + 4(3) - 10 = -25$



No solution

Problem 6 of 6

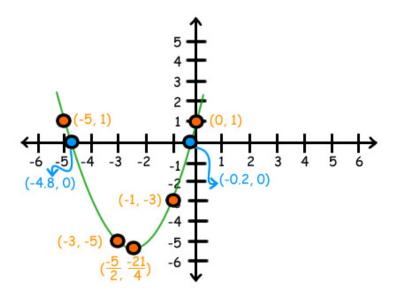
Questions? Ask a live tutor now! Ask Question

Solve $x^2 + 5x + 1 = 0$ by graphing.

Question

Answer

X	$y = x^2 + 5x + 1$
-5	$y = (-5)^2 + 5(-5) + 1 = 1$
-3	$y = (-3)^2 + 5(-3) + 1 = -5$
<u>-5</u> 2	$y = (\frac{-5}{2})^2 + 5(\frac{-5}{2}) + 1 = \frac{-21}{4}$
-1	$y = (-1)^2 + 5(-1) + 1 = -3$
0	$y = (0)^2 + 5(0) + 1 = 1$



$$x = -4.8$$
, -0.2 (Approximate)

11. Quadratic equations

Graphing quadratic equations
Vertex

Solving quadratic equations ...
Solving quadratic equations ...
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Transformations of Quadratic...