

Precalculus Prerequisite Topics Checklist

Need to Review

Expressions:

'Cancelling' – Do's and Don'ts

Exponents

Radicals

Graphing equations:

Graphs of Data

Graphing an Equation by t-chart, Basic Shapes

Equation of a Circle

Equations of Lines:

x- and y-intercepts

Slope and y-intercept

Forms of Equations of Lines

Parallel, Perpendicular, and Intersecting Lines

Find an Equation Given Constraints

Distance, Midpoint, and Slope Formulas

Factoring:

Greatest Common Factor

Trinomials w/leading coefficient 1

Trinomials w/non-1 leading coefficient

Difference of squares, grouping

Completing the Square

Solving Equations:

Definitions: Values, Expressions, Equations, and Solutions

Quadratic Equations by Factoring, Quadratic formula

Quadratic Equations by Square Roots, Completing the Square

Equations Containing Fractions

Equations Containing Radicals

Equations Containing Absolute Values

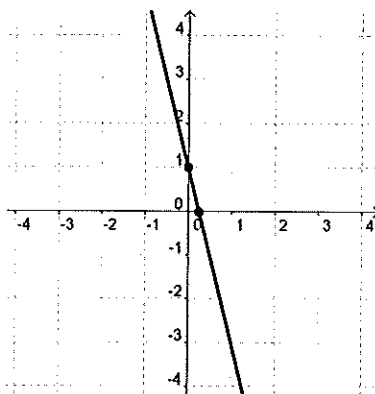
Systems of Equations

Precalculus Prerequisite Topics Pre-Quiz Answer Key

<u>Problem</u>	<u>Answer</u>	<u>Topic to Review if you missed this problem</u>
#1	$\frac{x+3}{3}$	Expressions: 'Cancelling' – Do's and Don'ts
#2	$\frac{x^{12}}{9y^6}$	Expressions: Exponents
#3	$12\sqrt{3} - 4\sqrt{2}$	Expressions: Radicals
#4	$3a^3b^4\sqrt{2ab}$	Expressions: Radicals
#5	$-6+3\sqrt{5}$	Expressions: Radicals
#6	$\frac{4}{5}$	Expressions: Radicals
#7	$(3, -4)$	Graphing: Graphs of Data
#8	a and d	Graphing: Graphs of Data
#9	b	Graphing: Graphing an Equation Using a T-Chart
#10	$(x-2)^2 + (y+7)^2 = 4$	Graphing: Equation of a Circle

#11

$x\text{-intercept} : \left(\frac{1}{4}, 0\right)$
 $y\text{-intercept} : (0, 1)$



Equations of Lines:
 x- and y-intercepts

#12

$-\frac{5}{2}$

Equations of Lines: Slope and y-intercept

Problem

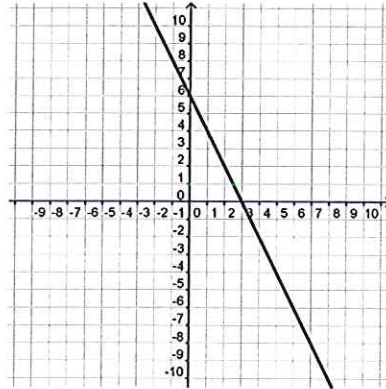
Answer

Topic to Review if you missed this problem

#13

slope : -2

y-intercept : $(0, 6)$



Equations of Lines:

Slope and y-intercept

#14 a) Answers vary depending upon what point you chose to use: Equations of Lines: Forms of Equations of Lines

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

$$(y - 3) = \frac{1}{2}(x - 3) \quad \text{are all correct}$$

$$y = \frac{1}{2}(x + 3)$$

b) $y = \frac{1}{2}x + \frac{3}{2}$

c) $x - 2y = -3$

d) $x - 2y + 3 = 0$

#15

perpendicular

Equations of Lines: Parallel, Perpendicular, Intersecting, Coinciding

#16

-3

Equations of Lines: Slope, Distance, Midpoint Formulas

#17

$\sqrt{34}$

Equations of Lines: Slope, Distance, Midpoint Formulas

#18

$\left(\frac{3}{2}, 2\right)$

Equations of Lines: Slope, Distance, Midpoint Formulas

#19

$3x - y = 11$

Equations of Lines: Find Equation Given Constraints

<u>Problem</u>	<u>Answer</u>	<u>Topic to Review if you missed this problem</u>
#20	$2x^2(2x+1)(x+1)$	Factoring: Greatest Common Factor, and Trinomials w/ Non-1 Lead Coefficient
#21	$3xy(x^3y-4d)$	Factoring: Greatest Common Factor
#22	$(x-3)(x-5)$	Factoring: Trinomials w/ Leading Coefficient 1
#23	$(5b+1)(2b-3)$	Factoring: Trinomials w/ Non-1 Leading Coefficient
#24	$(x-10y^2)(x+10y^2)$	Factoring: Difference of Squares, Grouping
#25	$(x+2)(5y-6)$	Factoring: Difference of Squares, Grouping
#26	$16x^2-16x+4 = (4x-2)^2$	Factoring: Completing the Square
#27	-13	Solving Equations: Definitions – Values, Expressions, etc.
#28	No	Solving Equations: Definitions – Values, Expressions, etc.
#29	a and c	Solving Equations: Definitions – Values, Expressions, etc.
#30	$x = -10, x = \frac{3}{2}$	Solving Quadratics by Factoring and Quadratic Formula
#31	$x = 0, x = 9$	Solving Quadratics by Factoring and Quadratic Formula
#32	$b = -\frac{1}{4} \pm \frac{\sqrt{2}}{2}$	Solving Quad. Equations by Square Roots, Completing the Square
#33	$x = -7 \pm \sqrt{2}$	Solving Quad. Equations by Square Roots, Completing the Square
#34	$x = -\frac{3}{2}$	Solving Equations Containing Fractions
#35	$x = 2$	Solving Equations Containing Fractions
#36	$x = 1$	Solving Equations Containing Radicals
#37	$x = -1, x = 3$	Solving Equations Containing Absolute Values
#38	(2, 4)	Solving Systems of Equations
#39	$(1, 1), \left(-\frac{3}{2}, \frac{7}{2}\right)$	Solving Systems of Equations