Honors Algebra 3-4 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   _____

<u>Honors Algebra 3-4 Prerequisite Topics Pre-Quiz Answer Key</u>

<u>Problem</u>	<u>Answer</u>	<u>Topic to Review if you missed this problem</u>
#1	$\dfrac{x+3}{3}$	Expressions: 'Cancelling' – Do's and Don'ts
#2	$\dfrac{x^{12}}{9y^{6}}$	Expressions: Exponents
#3	$12\sqrt{3}-4\sqrt{2}$	Expressions: Radicals
#4	$3a^{3}b^{4}\sqrt{2ab}$	Expressions: Radicals
#5	$-6+3\sqrt{5}$	Expressions: Radicals
#6	$\dfrac{4}{5}$	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 $x\text{-}intercept:\left(\dfrac{1}{4},0\right)$

$y\text{-}intercept:(0,1)$
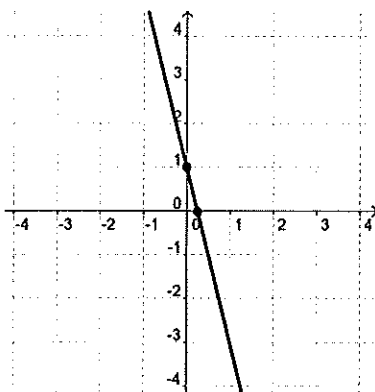
Equations of Lines:

x- and y-intercepts

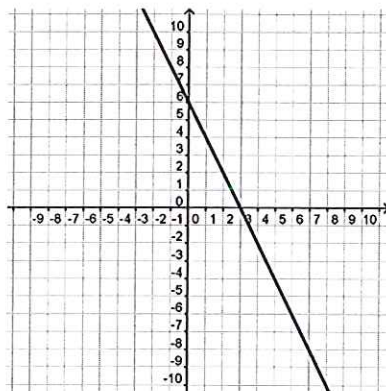#12 $-\dfrac{5}{2}$ Equations of Lines: Slope and y-intercept

Problem	Answer	Topic to Review if you missed this problem

#13
$$slope : -2$$
$$y\text{-}intercept : (0,6)$$

Equations of Lines:

Slope and y-intercept

#14 a) Answers vary depending upon   Equations of Lines: Forms of Equations of Lines

what point you chose to use:

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

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

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

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

Problem	Answer	Topic to Review if you missed this problem
#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	$16x^2-16x+\underline{4} = (\underline{4x-2})^2$	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	$x=-10,\ x=\dfrac{3}{2}$	Solving Quadratics by Factoring and Quadratic Formula
#31	$x=0,\ x=9$	Solving Quadratics by Factoring and Quadratic Formula
#32	$b=-\dfrac{1}{4}\pm\dfrac{\sqrt{2}}{2}$	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	$x=-\dfrac{3}{2}$	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	$(1,1),\ \left(-\dfrac{3}{2},\dfrac{7}{2}\right)$	Solving Systems of Equations