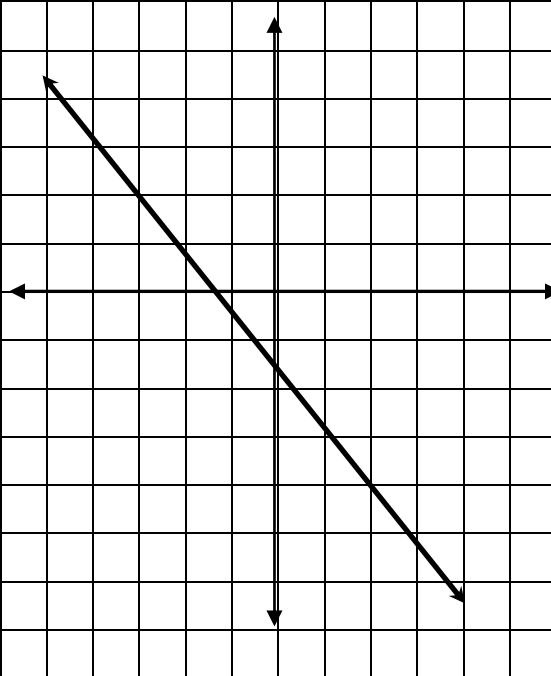


FCPS Algebra I Review

1.	Simplify: $9 - 4(8 - 3) + 10 + 2$
2.	Solve for k: $5(k - 6) + 3 = 8$
3.	Solve for n: $3(n - 3) + 23 = 2(n - 5)$
4.	Solve for y: $3(y - 2) - 16 = 8y$
5.	The length of a rectangle is 7 cm more than the width. The perimeter is 78 cm. Find the dimensions of the rectangle.
6.	Solve using an equation: Jim is three times as old as Jill. If the sum of their ages is 20, how old is each?
7.	Graph the line, $5x - 2y = 6$ on a coordinate plane.
8.	Find the slope of the line containing the points $(-2,4)$ and $(-7,1)$.
9.	Find the equation for this line 
10.	Find the equation of the line through $(-6,10)$ with a slope of $\frac{2}{3}$.
11.	Solve the system using any method: $x + 3y = 15$ $2x - y = 2$
12.	Solve: $x + y = 2$ $x - 2y = -10$
13.	One number is 8 more than twice the second number. The sum of the number is 123. Find the numbers.
14.	Solve and graph on a number line: $4 - 5x < 22 - 2x$

15.	Solve and graph on a number line. $-3 < 3x - 3 \leq 12$.
16.	Simplify: $\frac{32x^5y^7z}{20x^8y^2}$
17.	Perform the indicated operation and simplify: $(3x^2 - 5x - 7) - (8 - 9x^2 + 2x)$
18.	Perform the indicated operation and simplify: $(2x - 8)(7x - 3)$
19.	Factor completely: $49x^2 - 25$
20.	Factor completely: $7x^2 - 36x + 5$
21.	Factor completely: $x^3 - x^2 - 20x$
22.	Solve for x: $x^2 - 3x - 10 = 0$
23.	Solve for r: $6r^2 + r = 12$

Note to Parents, Teachers, and Students:

Topics of Ratio/Proportion and Rational Numbers (focus: radicals) will not be included on the placement exam administered in March; but are topics that should be mastered with the completion of Algebra 1. The following represent a sampling of these types of items:

24.	Simplify: $12\sqrt{75}$
25.	Simplify: $\frac{5}{\sqrt{3}}$
26.	Simplify: $3\sqrt{45} - \sqrt{20}$
27.	Solve the proportion for x: $\frac{8}{x-3} = \frac{5}{x}$
28.	Solve for the proportion for x: $\left(\frac{x-4}{x+5}\right) = \left(\frac{x-3}{x+9}\right)$
29.	The perimeter of a rectangle is 68 feet. Find the dimensions of the rectangle if the ratio of the length to the width is 9:8.