

Practice 1.2.1**Remember to show your work!**

1-66. Use any method to determine the point(s) of intersection of the graphs of $f(x) = 3x - 5$ and $y=g(x)$ shown in the table below.

x	-3	-2	-1	0	1	2	3
$g(x)$	21	17	13	9	5	1	-3

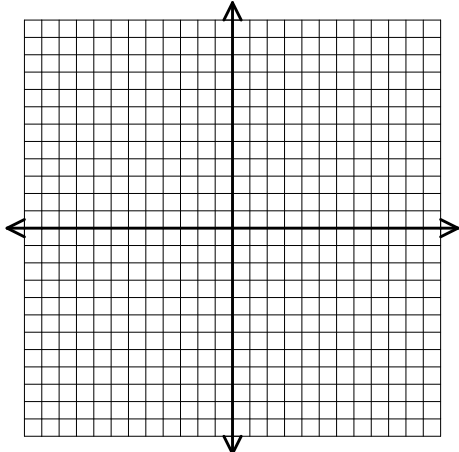
1-67. Simplify each of the following expressions. Be sure that your answers have no parentheses and no negative or fractional exponents.

a. $27^{1/3}$	b. $(5x^7y^{-1})^{-2}$	c. $(3x^9 \cdot y^{-4})(6x^{-8}y^4)$
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1-68. If $2^{x+4} = 2^{3x-1}$, what is the value of x ?

1-70. Carlo got a pet snake as a birthday present. On his birthday, the baby snake was just 26 cm long. He has been measuring its length weekly and has noticed that it has been growing approximately 2 cm each week.

- a. Create multiple representations (table, graph, and equation) of the situation for which the input is time in weeks since Carlo's birthday, and the output is the length of the snake in centimeters.

<p>Table:</p> <table border="1"> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>														<p>Equation:</p>

- b. If the snake continues to grow at the same rate, when will it be 1 meter (100 cm) long? How can you see this in each representation?

1-71. What value of y allows you to determine the x -intercept(s)? For each function, where does its graph intersect the x -axis? Write each answer as an ordered pair.

a. $y = 3x + 6$	b. $x = 5y - 10$
c. $y = x^2$	d. $y = 2x^2 - 4$
e. $y = (x - 5)^2$	f. $y = x^3 - 13$

1-72. Rewrite each equation by solving for x . (Note that y will be in your answer).

a. $y = \frac{3}{5}x + 1$	b. $3x + 2y = 6$
c. $y = x^2$	d. $y = x^2 - 100$