

**Spring Break - Unit 6 Review**

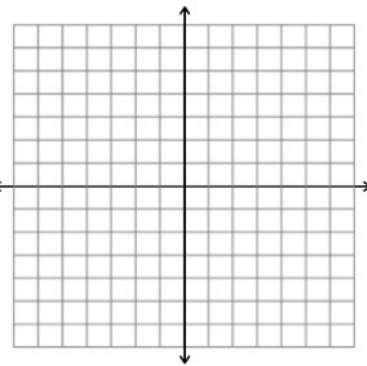
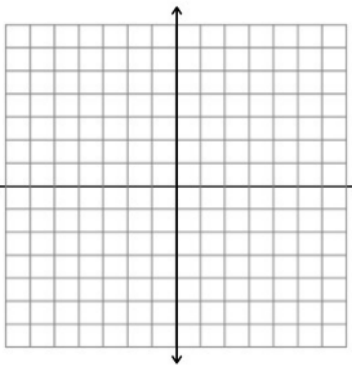
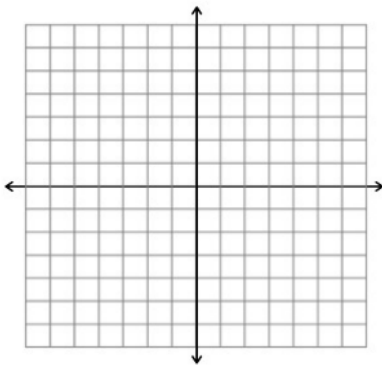
Form G

Solve each system by **graphing**.Tell whether the system has *one solution*, *infinitely many solutions*, or *no solution*.

$$\begin{aligned} 1. \quad & y = x - 2 \\ & y = -3x - 6 \end{aligned}$$

$$\begin{aligned} 2. \quad & 3y - 4x = -6 \\ & y = \frac{4}{3}x - 2 \end{aligned}$$

$$\begin{aligned} 3. \quad & y = 3x - 4 \\ & y - 3x = 1 \end{aligned}$$

Solve each system using **substitution**.

<p>4. <math>y = 2x + 5</math> <math>y = 6x + 1</math></p>	<p>5. <math>x = y + 7</math> <math>y - 8 = 2x</math></p>	<p>6. <math>4x + y = 2</math> <math>3y + 2x = -1</math></p>
---	--	---

Solve each system using **elimination**.

<p>7. <math>x + 3y = 11</math> <math>2x + 3y = 4</math></p>	<p>8. <math>2x + 4y = -12</math> <math>-6x + 5y = 2</math></p>	<p>9. <math>4x + 2y = 36</math> <math>10x - 4y = -6</math></p>
---	--	--

**Write a system of equations to model each situation. Solve by any method.**

<p><b>10.</b> The sum of two numbers is 70. Their difference is 26. Write a system of equations that reflects the situation. What are the two numbers?</p>	<p><b>11.</b> Two numbers have a sum -25 and a difference of -39. What are the two numbers?</p>	<p><b>12.</b> The sum of two numbers is 90. The larger number is 14 more than 3 times the smaller number. What are the two numbers?</p>
<p><b>13.</b> You have ones &amp; fives in your pocket. 61 bills total, worth \$201. How many fives &amp; ones are there?</p>	<p><b>14.</b> Penny has a collection of dimes and nickels. She has 95 coins totaling \$4.90. Find how many of each type of coin she has.</p>	

**15.** A house on City St. cost \$450 a month, plus a \$900 deposit. A house on Town Ave. costs \$600 a month with no deposit.

<p>A) Define variable  ____ = _____</p>	<p>B) Write equation</p>	<p>C) Solve</p>	<p>D) How many months do you need to live in City St. for it to be the cheaper option?</p>
---	--------------------------	-----------------	--

**16.** Joe is going on vacation and need to leave his cats at a kennel. Best Cat Kennel charges \$6 per day plus \$50 processing fee. The Here Kitty-Kitty Kennel charges \$8 per day and has a \$35 processing fee. How many days until they will cost the same?

<p>A) Define variable  ____ = _____</p>	<p>B) Write equation</p>	<p>C) Solve</p>	<p>D) How long should your vacation be for it to make sense to use Best Cat Kennel?</p>
---	--------------------------	-----------------	---

**17.** Jay's Body Shop pays \$2400 a day for building rent & equipment. It usually costs \$450 to put together the average car. If they sell a car for an average of \$1,250, how many cars do they sell before they break even?

<p>A) Define variable  ____ = _____</p>	<p>B) Write equation for cost &amp; income.</p>	<p>C) Solve</p>
---	---	-----------------