

# Common Core Flash Card Review

<p>What is an irrational number?</p>	<p>Which square roots are irrational? List some examples</p>
<p>Find <math>\sqrt{2}</math> to the nearest thousandths. Find <math>\sqrt{5}</math> to the nearest tenth. <math>\sqrt{10}</math> is between what two integers?</p>	<p>Solve: <math>x^2 = 16</math> Solve <math>x^3 = 27</math></p>
<p>What 3 things must be true about a relationship for it to be proportional?</p>	<p>What is slope? How do you find slope? Slope is also called a rate of ____ What does slope intercept form look like?</p>
<p>What does m stand for? What is the y-intercept? What does it mean? What kind of triangle can you use to help find slope on a graph?</p>	<p>Any system of equations (two equations) has to do one of the following three things.....</p>
<p>How do you know if a system of equations has a. One solution b. Many solutions c. No solutions Be sure to know what they would look like graphically and algebraically</p>	<p>Write a linear equation (using only one variable) whose answer is 2: a. By having to combine like terms to find your answer b. By having to use the distributive property to find your answer c. By having to use a combination of both a and b to find your answer</p>

<p>What are the 4 geometric transformations?</p>	<p>What is a reflection? If the point (9, 7) is reflected over the y-axis, what is the new point? If the point (4,-5) is reflected over the x-axis what is the new point?</p>										
<p>What is a rotation? Which way is counterclockwise? If the point (7, 8) is rotated counterclockwise 180 degrees, what is the new point?</p>	<p>What is a translation? If the point (5, -4) is translated 6 spaces up and 3 spaces left, what is the new point?</p>										
<p>What is a dilation? If the point (-3, 2) is dilated by a scale factor of 6, what is the new point? If the point (-7, -6) is dilated by a scale factor of 1/2, what is the new point?</p>	<p>Change 5/6 to a decimal.  Change 0.3535.... to a fraction.</p>										
<p>List these numbers from least to greatest:  1.5, <math>\sqrt{5}</math>, -6, <math>4^2</math>, 3, <math>\sqrt{24}</math></p>	<p>Find the volume of an ice cream cone whose radius is 4 cm and whose height is 12 cm.</p>										
<p>Which function has a greater rate of change: <math>Y = 3/4x - 7</math> or the relationship in the table? How do you know?</p> <table border="1" data-bbox="154 1701 397 1900"> <thead> <tr> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>12</td> <td>3</td> </tr> <tr> <td>15</td> <td>5</td> </tr> <tr> <td>21</td> <td>9</td> </tr> <tr> <td>39</td> <td>21</td> </tr> </tbody> </table>	x	y	12	3	15	5	21	9	39	21	<p>Find the volume of a pop can whose height is 15 cm and whose radius is 8cm.</p>
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<p><b>What is volume of a tennis ball whose diameter is 5 inches?</b></p>	<p><b>What does a negative correlation in a scatter plot mean?</b></p>
<p><b>What does a positive correlation in a scatter plot mean?</b></p>	<p><b>Describe how to find the line of best fit for a scatter plot?</b></p>
<p><b>What is an outlier? What does an outlier do to data?</b></p>	<p><b>What is relative frequency? How do you find the relative frequency of a data item?</b></p>
<p><b>What is Pythagorean Theorem? What is it used for?</b></p>	<p><b>Find the hypotenuse of a right triangle whose base is 5 inches and whose height is 12 inches?</b></p>
<p><b>You have a 54 inch flat screen TV. How long does the table that holds your TV have to be if the TV is 24 inches tall?</b></p>	<p><b>List the measurements for at least three other triangles that follow the same pattern as a 3-4-5 right triangle.</b></p>

<p>Solve: <math>2x^2 = 10</math></p>	<p>What does scientific notation look like?</p>										
<p>Simplify: <math>(3.2 \times 10^5)(1.6 \times 10^3)</math></p> <p>Simplify: <math>\frac{(8.4 \times 10^7)}{(2.1 \times 10^5)}</math></p>	<p>Identify the slope or rate of change in each of the following:</p> <p>a. <math>Y = 2/3x + 4</math></p> <p>b. Gas costs \$3.05 per gallon. If you buy x gallons the equation to express you total cost is <math>c = 3.05x</math></p> <p>c. Apples cost \$0.45 per pound</p>										
<p>Solve: <math>2/3x + 6 = -4</math></p> <p>Solve: <math>4(x + 9) = 2x - 6</math></p> <p>Solve: <math>x + 5 = x + 7</math></p> <p>Solve: <math>2(x + 4) = 2x + 8</math></p>	<p>Is (4, 1) a solution to this system of equations?</p> <p><math>3x - 2y = 10</math></p> <p><math>2x + 7y = 15</math></p> <p>Solve this system of equations:</p> <p><math>4x - 3y = 12</math></p> <p><math>Y = x + 2</math></p>										
<p>What is a function?</p> <p>What does a function look like?</p> <p>Are all lines functions?</p> <p>What does the equation of a line look like?</p>	<p>What does non-linear mean?</p> <p>What does a non-linear function look like:</p> <p>a. Graphically (draw a picture)</p> <p>b. Algebraically (write an equation)</p>										
<p>Is the following table a function? Why or why not? <del>If yes, what is the rate of change?</del></p> <table border="1" data-bbox="177 1661 417 1864"> <thead> <tr> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>12</td> <td>3</td> </tr> <tr> <td>15</td> <td>5</td> </tr> <tr> <td>21</td> <td>9</td> </tr> <tr> <td>39</td> <td>21</td> </tr> </tbody> </table>	x	y	12	3	15	5	21	9	39	21	<p>One day there was 5 inches of water in the pond. After three days of consistent rain, the water level in the pond rose to 12 inches. What was the rate of change of the pond water over that time period? Write an equation to describe this change using slope intercept form.</p>
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