

For full credit, show all work.

1.	Which statement is false? A Some integers are irrational. B Some integers are whole numbers. C Some rational numbers are integers. D Some real numbers are irrational.					
2.	To which set or sets does the number 8.25 belong? A Integers only B Rational numbers only C Integers and Rational numbers only D Whole numbers, Integers, and Rational numbers					
3.	Which rational number is also an integer? A $-\frac{82}{6}$ B $-\frac{65}{13}$ C $\frac{43}{5}$ D $\frac{70}{25}$					
4.	Which number below is in the set of integers but is not in the set of whole numbers? A -2 B 0 C $5\frac{1}{2}$ D 100					
5.	How many decimal places does an irrational number have? A Zero C Infinite B One D Between one and ten					
6.	Classify the following square roots: $\sqrt{1}$ $\sqrt{5}$ $\sqrt{9}$ $\sqrt{20}$	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: none;"></td> <td style="border: none;">Rational</td> </tr> <tr> <td style="border: none;"></td> <td style="border: none;">Irrational</td> </tr> </table>		Rational		Irrational
	Rational					
	Irrational					

Solve.

7.	$2.3 + 12.04$		8.	$2.6 \cdot 33$	
9.	$800 - 1.25$		10.	$\frac{7.816}{0.05}$	

Solve each problem. **Label your answers correctly.**

11.	Mrs. Loewen decides to buy donuts for all of her students. She buys 80 donuts at Krispy Kreme. The first 40 cost \$0.60 each and then each additional donut is \$0.52. How much money did Mrs. Loewen spend?	
12.	Carly initially earned a 9.625 on the balance beam. The judges then took off an additional 0.05 for every balance check. How many balance checks did Carly have if her final score was a 9.175?	

Solve.

24.	$88 \div \left(\frac{32}{0.4}\right)$		25.	$\sqrt{1764}$	
26.	$\sqrt{324}$		27.	28^2	
28.	$\sqrt{40}$ (to the nearest tenth)		29.	$\sqrt{231}$ is between which two consecutive whole numbers?	

30.	<p>What would not be included as part of an algebraic expression?</p> <p>A an equals sign B at least one variable C one or more numbers D an operation such as addition</p>	
31.	<p>Jar Jar Binks decides he wants to sell cookies to all of his strange friends. He buys 4 bags of chocolate chips and 8 boxes of cookie mix for a total of \$24.25. Each bag of chocolate chips costs \$2.69. Which equations can be used to find the total cost of one box of cookie mix?</p> <p>A $t = (\\$2.69 \cdot 4) + 24.25$ B $t = \\$24.25 - (8 \cdot \\$2.69)$ C $t = (\\$24.25 - 4 \cdot \\$2.69) \div 8$ D $t = (\\$24.25 - \\$2.69) \div 8$</p>	
32.	<p>The Empire Inc. employs 2500 workers. It plans to decrease its workforce by 50 employees per month until it is half its current size. Which equation could be used to determine m, the number of months it will take to cut in half?</p> <p>A $2500m - 50m = 1250$ B $2m + 50 = 1250$ C $2(50m - 250) = 1250$ D $2500 - 50m = 1250$</p>	

A = Associative Property

B = Identity Property

C = Commutative Property

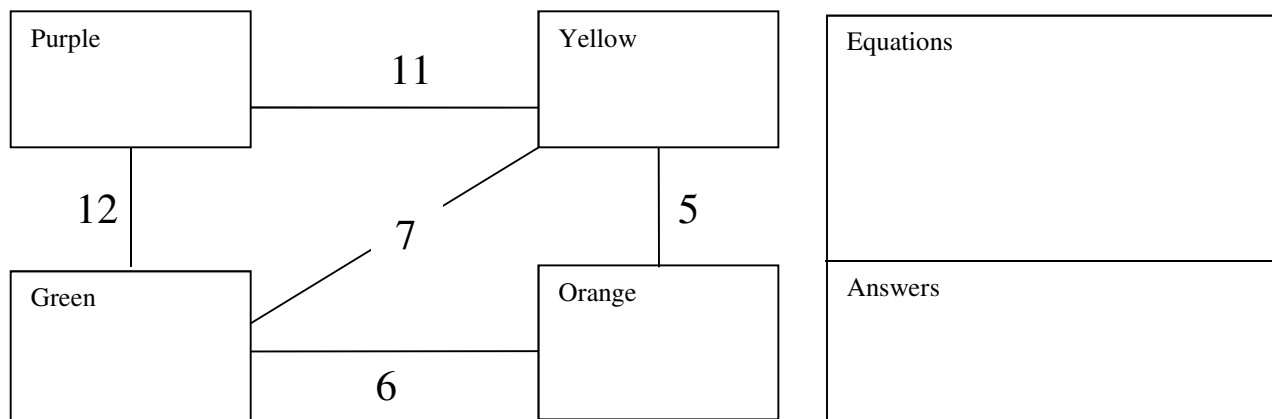
D = Distributive Property

33.	<p>Sarah asked Mr. Mangham what 6 times 82 equals. Being the math genius he is, Mr. Mangham replied that 6 times 80 is 480 and 6 times 2 is 12. When you add 480 and 12 together you get a total of 492. Which property did Mr. Mangham use?</p>	
34.	<p>Jack asked Mr. Underwood what $59+67+41$ equals. Being the math genius he is, Mr. Underwood replied that $59+41$ equals 100. Add 67 more you get 167. Which property did Mr. Underwood use?</p>	
35.	<p>Sam asked Mrs. Fauatea what $(17 \cdot 20) \cdot 5$ equals. Being the math genius she is, Mrs. Fauatea replied that the expression is that same as $17 \cdot (20 \cdot 5)$ which is obviously 1700. Which property did Mrs. Fauatea use?</p>	

Evaluate each expression.

36.	$4^3 + 2^3$		37.	$(11^2 - 9) \cdot 2$		38.	$(6.2 - 2) \cdot (8 - 1.3)$	
39.	$5^3 - 3^2 \cdot 7$		40.	$15 - 3 \cdot 5 + 2$		41.	$64 - 12 \cdot \sqrt{4^2}$	

42. For the Jedi arena shown below, write the correct equations and then solve for the number of Jedi.



Evaluate each expression if $a = 4$, $b = 2$, $c = 6$, and $d = 9$, $u = 1$.

43.	$\frac{b(d - c) + 30}{3a}$		44.	$(2bad) + (4u)$	
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Write each phrase as an algebraic expression or equation.

45.	three less than the square root of c	
46.	twice a number increased by 7 is 55	

Order from least to greatest.

47.	$\sqrt{130}, 11, (3.2)^2, \frac{0.45}{0.04}$				
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48.	Mr. Mangham wrote the numbers below on the board. Which number is closest to 3? $\sqrt{6}, \sqrt{10}, \sqrt{12}, \sqrt{14}$	
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