


















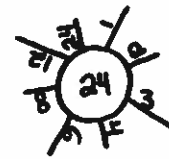

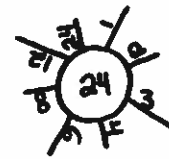

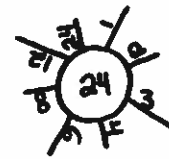














Lesson 8: Prime Factorization, GCF & LCM

*Answer the questions in each box showing your work.
Directions: Solve each problem. Choose the correct answer.*

<p>1. True or False All odd #'s are divisible by 3.</p>	<p>2. True or False All even #'s are divisible by 2.</p>	<p>3. Which numbers below are prime?</p> <p style="text-align: center; font-weight: bold;">2,3,5,7,9,11,13,15</p>												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">(a) If your answer is True draw the following head & eyes.</td> <td style="width: 50%; text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is False draw the following head & eyes.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is True draw the following head & eyes.		(b) If your answer is False draw the following head & eyes.		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">(a) If your answer is True draw the following body & necklace.</td> <td style="width: 50%; text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is False draw the following body & necklace.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is True draw the following body & necklace.		(b) If your answer is False draw the following body & necklace.		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">(a) If your answer is 3,5,7,9,11,13 draw the following nose & mouth.</td> <td style="width: 50%; text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is 2,3,5,7,11,13 draw the following nose & mouth.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is 3,5,7,9,11,13 draw the following nose & mouth.		(b) If your answer is 2,3,5,7,11,13 draw the following nose & mouth.	
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<p>4. Find the prime factorization. Write in exponent form.</p> <p style="text-align: center; font-weight: bold;">36</p>	<p>5. Find the prime factorization. Write in exponent form.</p> <p style="text-align: center; font-weight: bold;">45</p>	<p>6. Find the prime factorization. Write in exponent form.</p> <p style="text-align: center; font-weight: bold;">200</p>												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">(a) If your answer is $2^2 \cdot 3^2$ draw the following sun.</td> <td style="width: 50%; text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is $2^3 \cdot 3^2$ draw the following sun.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is $2^2 \cdot 3^2$ draw the following sun.		(b) If your answer is $2^3 \cdot 3^2$ draw the following sun.		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">(a) If your answer is $5 \cdot 9$ write the following # on the necklace.</td> <td style="width: 50%; text-align: center; padding: 2px;">15</td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is $3^2 \cdot 5$ write the following # on the necklace.</td> <td style="text-align: center; padding: 2px;">12</td> </tr> </table>	(a) If your answer is $5 \cdot 9$ write the following # on the necklace.	15	(b) If your answer is $3^2 \cdot 5$ write the following # on the necklace.	12	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">(a) If your answer is $2^2 \cdot 5 \cdot 10$ write the following #'s on the pouch.</td> <td style="width: 50%; text-align: center; padding: 2px;">1,3,5,15</td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is $2^3 \cdot 5^2$ write the following #'s on the pouch.</td> <td style="text-align: center; padding: 2px;">1,2,3 4,6,12</td> </tr> </table>	(a) If your answer is $2^2 \cdot 5 \cdot 10$ write the following #'s on the pouch.	1,3,5,15	(b) If your answer is $2^3 \cdot 5^2$ write the following #'s on the pouch.	1,2,3 4,6,12
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<p>7. Find the factors of 20.</p>	<p>8. Find the factors of 36.</p>	<p>9. Find the Greatest Common Factor for 20 & 36.</p>												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">(a) If your answer is 1,2,4,5, 10,20 draw the following ground.</td> <td style="width: 50%; text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is 1,2,10,20 draw the following ground.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is 1,2,4,5, 10,20 draw the following ground.		(b) If your answer is 1,2,10,20 draw the following ground.		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">(a) If your answer is 1,2,3,4,6,9, 12,18,36 draw the following cactus.</td> <td style="width: 50%; text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is 1,2,3,6,12,36 draw the following tumbleweed.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is 1,2,3,4,6,9, 12,18,36 draw the following cactus.		(b) If your answer is 1,2,3,6,12,36 draw the following tumbleweed.		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px;">(a) If your answer is 12 write the following vocabulary word in the box.</td> <td style="width: 50%; text-align: center; padding: 2px;">Multiples</td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is 4 write the following vocabulary word in the box.</td> <td style="text-align: center; padding: 2px;">Factors</td> </tr> </table>	(a) If your answer is 12 write the following vocabulary word in the box.	Multiples	(b) If your answer is 4 write the following vocabulary word in the box.	Factors
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(a) If your answer is 12 write the following vocabulary word in the box.	Multiples													
(b) If your answer is 4 write the following vocabulary word in the box.	Factors													

Directions: Solve each problem and **COLOR** the object that corresponds with your answer.

<p>10. Find the Greatest Common Factor for 27 & 45.</p>	<p>11. Will has 24 candy bars and 36 cookies. What is the greatest number of treat bags he can make if each bag has the same number of items?</p>	<p>12. Alyssa has 9 markers and 24 pencils. What is the most number of kits she can make if each kit has the same number of items?</p>
<p>(a) If your answer is 3 color the inside of ears, tummy & pouch grey.</p>	<p>(a) If your answer is 8 color the heads, arms & legs black.</p>	<p>(a) If your answer is 3 outline the nose & mouth in black.</p>
<p>(b) If your answer is 9 color the inside of ears, tummy & pouch apricot.</p>	<p>(b) If your answer is 12 color the heads, arms & legs reddish/brown.</p>	<p>(b) If your answer is 9 outline the nose & mouth in red.</p>
<p>13. List the next 3 multiples 8, 16, __, __, __</p>	<p>14. List the next 3 multiples 6, 12, 18, __, __, __</p>	<p>15. Find the Least Common Multiple for 6 & 15.</p>
<p>(a) If your answer is 24,32,40 color the ground brown.</p>	<p>(a) If your answer is 21,24,27 color the eyes green.</p>	<p>(a) If your answer is 30 color the cactus/tumbleweed green.</p>
<p>(b) If your answer is 24,36,48 color the ground apricot.</p>	<p>(b) If your answer is 24,30,36 color the eyes blue.</p>	<p>(b) If your answer is 6 color the cactus/tumbleweed brown.</p>
<p>16. Find the Least Common Multiple for 9 & 12.</p>	<p>17. The cafeteria serves pizza every 6th day and tacos every 4th day. If they both were served on May 1st, how many days will it be before they are served on the same day.</p>	<p>18. Chicken patties are sold in packs of 8. Buns are sold in packs of 10. What is the least number of chicken patties & buns needed so that no food is wasted?</p>
<p>(a) If your answer is 72 color the center of the sun orange and the rays red.</p>	<p>(a) If your answer is 12 color the necklace yellow.</p>	<p>(a) If your answer is 20 outline all the #'s & words in red.</p>
<p>(b) If your answer is 36 color the center of the sun yellow and the rays orange.</p>	<p>(b) If your answer is 24 color the necklace purple.</p>	<p>(b) If your answer is 40 outline all the #'s & words in black.</p>

Artistic Tip: When you are done coloring, it looks nice to outline the major features using a black crayon or marker.

Facing Math Vocabulary...

