

Name _____

Colorful Walls

Randy is painting a room in his house. One wall will be blue, one wall will be red, and two walls will be yellow.

1. What fraction of the walls will be red? _____

2. It takes Randy 30 minutes to paint one wall. He started painting at 5:00 and stopped at 6:15 to eat dinner. If each wall takes the same amount of time, how many walls was he able to paint in that time?

3. The paint store is having a sale on paint. Each color comes in one-gallon containers that cost \$12. Three-eighths of a gallon of paint is needed to paint each wall. Randy has \$40 to spend on paint.

Will he have enough money? _____

Explain how you know:

4. Randy wants to paint his bathroom with the leftover paint.
- Each wall in the bathroom takes $\frac{1}{8}$ of a gallon of paint.
 - Each wall will be painted solid yellow, blue, or red
 - At least two colors of paint will be used in the bathroom.
 - Some of each color of paint should be remaining after painting the bathroom.

Describe two possible combinations of wall colors Randy could use in the bathroom for his four bathroom walls.

	Wall Colors Option A	Wall Colors Option B
Wall #1		
Wall #2		
Wall #3		
Wall #4		

5. Randy's daughter, Carly, wants Randy to paint two of the walls in the bathroom yellow. Randy says that is not an option because of the description of the rules for painting the bathroom in #4. Why is Randy correct?

<p style="text-align: center;">Colorful Walls: Scoring Rubric Grade 4</p>	<p style="text-align: center;">Points</p>	<p style="text-align: center;">Section points</p>
<p>1. Gives correct answer: 1/4</p>	<p style="text-align: center;">1</p>	<p style="text-align: center;">1</p>
<p>2. Gives correct answer: 2 1/2</p>	<p style="text-align: center;">1</p>	<p style="text-align: center;">1</p>
<p>3. Gives correct answer: yes</p> <p>Give correct explanation, such as: <i>He only needs to buy 3 gallons – 1 each of blue and red, and one yellow since $3/8 + 3/8 = 6/8$, and $6/8 < 1$. 3 gallons x \$12 = \$36.</i></p> <p>Accept 3 gallons x \$12 = \$36.</p>	<p style="text-align: center;">1</p> <p style="text-align: center;">1</p>	<p style="text-align: center;">2</p>
<p>4. Gives any two options that fit the criteria, <u>such as</u>:</p> <p>Option A – <i>yellow, red, red, blue</i> Option B – <i>red, red, red, blue</i></p> <ul style="list-style-type: none"> • Make sure at least two colors are used • Yellow can only be used for ONE wall in either option 	<p style="text-align: center;">1</p> <p style="text-align: center;">1</p>	<p style="text-align: center;">2</p>
<p>5. Gives correct explanation, such as:</p> <p><i>Because there needs to be paint left over, yellow can only be used on one wall. Each bathroom wall takes 1/8 gallon of paint, and there would only be 2/8 gallon left over from the room painting. If two walls were painted yellow, there would be no yellow paint left over.</i></p>	<p style="text-align: center;">1</p>	<p style="text-align: center;">1</p>
<p style="text-align: right;">Total Points</p>		<p style="text-align: center;">7</p>