

Student Task	Use ratios and percents to solve a practical problem involving the mixing of paint.
Core Idea 1 Number and Operations	Understand number systems and ways of representing number, relationships, and number systems. <ul style="list-style-type: none">• Develop, analyze and explain methods for solving problems involving proportional reasoning, such as scaling and finding equivalent ratios• Understand the meaning and effects of operations with rational numbers.• Develop and use strategies to estimate the results of rational number computations, and judge the reasonableness of results.• Work flexibly with fractions, decimals, and percents to solve problems.

Mixing Paints

This problem gives you the chance to:

- use ratios and percents in a practical situation
-

Wayne is mixing paint.



He makes six quarts of brown paint by mixing equal quantities of yellow paint and violet paint. The violet paint is made from one-third red paint and two-thirds blue paint.

1. How much red paint does he use? _____ quart(s)
2. How much blue paint does he use? _____ quart(s)
3. What percentage of the brown paint is made from blue paint? _____

Explain how you figured it out.

5

Mixing Paints		Test 7 Form A Rubric	
The core elements of performance required by this task are: • use ratios and percents in a practical situation Based on these, credit for specific aspects of performance should be assigned as follows:		Points	Section Points
1. Gives correct answer as: red = 1 quart		1	1
2. Gives correct answer as: blue = 2 quarts <i>Special case:</i> Gives answers $\frac{1}{6}$ and $\frac{2}{6}$ ($\frac{1}{3}$) as fractional parts.		1 1 s c	1
3. Gives correct answer as: 33.3% (accept 33%) Gives correct explanation such as: He uses three quarts each of yellow and violet . In 3 quarts of violet there is one quart of red and 2 quarts of blue. The percent of blue = $\frac{2}{6} \times 100 = 33.3\%$ <i>Accept alternative correct solutions.</i>		1 2	3
Total Points			5

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