## Ratio Tables to Equations Worksheet

Jorge plans to mix red paint and blue paint to create purple paint. The color of purple he has decided to make combines red paint and blue paint in the ratio 4: 1. If Jorge can only purchase paint in one gallon containers, construct a ratio table for all possible combinations for red and blue paint that will give Jorge no more than 25 gallons of purple paint.

| Blue ( $B$ ) | $\operatorname{Red}(R)$ | Relationship |
| :--- | :--- | :--- |
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Write an equation that will let Jorge calculate the amount of red paint he will need for any given amount of blue paint.

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If Jorge has 24 gallons of red paint, how much blue paint will he have to use to create the desired color of purple?

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Jorge now plans to mix red paint and blue paint to create purple paint. The color of purple he has decided to make combines red paint and blue paint in the ratio 4: 1. If Jorge can only purchase paint in one gallon containers, construct a ratio table for all possible combinations for red and blue paint that will give Jorge no more than 25 gallons of purple paint.

| Blue $(B)$ | $\operatorname{Red}(R)$ | Relationship |
| :---: | :---: | :---: |
| 1 | 4 | $4=1 \times 4$ |
| 2 | 8 | $8=2 \times 4$ |
| 3 | 12 | $12=3 \times 4$ |
| 4 | 16 | $16=4 \times 4$ |
| 5 | 20 | $20=5 \times 4$ |

$$
\begin{aligned}
& R=4 B \\
& B=\frac{1}{4} R
\end{aligned}
$$

Write an equation that will let Jorge calculate the amount of red paint he will need for any given amount of blue paint.
$R=4 B$

Write an equation that will let Jorge calculate the amount of blue paint he will need for any given amount of red paint.
$B=\frac{1}{4} R$

If Jorge has 24 gallons of red paint, how much blue paint will he have to use to create the desired color of purple?

Jorge will have to use $\mathbf{6}$ gallons of blue paint.

If Jorge has 24 gallons of blue paint, how much red paint will he have to use to create the desired color of purple?

Jorge will have to use 96 gallons of red paint.

