MathFLIX CHALLENGE

Numbers: Proportions & Percent: Proportions Intro

A *proportion* is two equal ratios. For example, $^1/_2 : {}^2/_4$ is a proportion, as is $^2/_4 : {}^4/_8$ and $^4/_8 : {}^8/_{16}$. Use cross multiplication to prove that $^2/_4 = {}^8/_{16}$ and then determine the next proportion.

$$\frac{2}{4} \times \frac{8}{16} \qquad \frac{8}{16} \quad \frac{}{32}$$

Below are sets of ratios in fraction form. Determine if they are proportions by using an = sign if they are equal and a ≠ if they are not. Hint: use cross multiplication to help determine if two fractions are equal.

$\frac{1}{3} \quad \frac{3}{4}$	$\frac{4}{5} \quad \frac{8}{15}$	$\frac{9}{12} \quad \frac{3}{4}$	$\frac{6}{12} \quad \frac{2}{3}$
$\frac{8}{12} \quad \frac{2}{3}$	$\frac{5}{3} \quad \frac{15}{9}$	$\frac{12}{2} \quad \frac{18}{1}$	

Now use your skills to complete the proportions by ?lling in the missing numbers.

$\frac{3}{4} = \frac{6}{\square}$	$\frac{1}{2} = \frac{\square}{14}$	$\frac{16}{12} = \frac{\square}{4}$	$\frac{2}{3} = \frac{6}{\square}$
$\frac{\square}{3} = \frac{12}{9}$	$\frac{\square}{5} = \frac{12}{10}$	$\frac{6}{\square} = \frac{18}{21}$	$\frac{\square}{4} = \frac{8}{\square}$ *

*There are many possible answers to this one. Can you come up with more than one?