Name: .... Class: ....

Find the missing numerator or denominator in addition and subtraction sentences

Find the missing number(s) below. Simplify your answer.

a. $\dfrac{5}{12} + \dfrac{\square}{3} = \dfrac{3}{4}$

b. $\dfrac{6}{10} - \dfrac{1}{8} = \dfrac{\square}{\square}$

c. $\dfrac{3}{\square} - \dfrac{2}{5} = \dfrac{7}{20}$

d. $\dfrac{4}{7} - \dfrac{1}{\square} = \dfrac{1}{14}$

e. $\dfrac{2}{9} + \dfrac{3}{4} = \dfrac{\square}{\square}$

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Find the missing numerator or denominator in addition and subtraction sentences

Find the missing number(s) below. Simplify your answer.

a. $\dfrac{5}{12} + \dfrac{\square}{3} = \dfrac{3}{4}$

To find the missing valve, let's subtract $\dfrac{5}{12}$ from both sides of the equation.

$\dfrac{5}{12} + \dfrac{\square}{3} = \dfrac{3}{4}$ → $\dfrac{\cancel{5}}{\cancel{12}} + \dfrac{\square}{3} - \dfrac{\cancel{5}}{\cancel{12}} = \dfrac{3}{4} - \dfrac{5}{12}$

So, $\dfrac{\square}{3} = \dfrac{3}{4} - \dfrac{5}{12}$

Now, let's find the LCM of the denominators, then evaluate.

$\dfrac{\square}{3} = \dfrac{3}{4} - \dfrac{5}{12} = \dfrac{9 - 5}{12} = \dfrac{4}{12} = \dfrac{1}{3}$

Therefore, the missing number is 1 and the complete expression is $\dfrac{5}{12} + \dfrac{\boxed{1}}{3} = \dfrac{3}{4}$

b. $\dfrac{6}{10} - \dfrac{1}{8} = \dfrac{\square}{\square}$

Let's find the LCM of the denominators, then evaluate.

$\dfrac{6}{10} - \dfrac{1}{8} = \dfrac{48 - 10}{80} = \dfrac{38}{80} = \dfrac{19}{40}$

So, $\dfrac{6}{10} - \dfrac{1}{8} = \dfrac{19}{40}$

c. $\dfrac{3}{\square} - \dfrac{2}{5} = \dfrac{7}{20}$

$\dfrac{3}{\boxed{4}} - \dfrac{2}{5} = \dfrac{7}{20}$

To find the missing valve, let's add $\dfrac{2}{5}$ to both sides of the equation.

$\dfrac{3}{\square} - \dfrac{2}{5} = \dfrac{7}{20}$ → $\dfrac{3}{\square} - \dfrac{\cancel{2}}{\cancel{5}} + \dfrac{\cancel{2}}{\cancel{5}} = \dfrac{7}{20} + \dfrac{2}{5}$

$\dfrac{3}{\square} = \dfrac{7}{20} + \dfrac{2}{5} = \dfrac{7 + 8}{20} = \dfrac{15}{20} = \dfrac{3}{4}$

d. $\dfrac{4}{7} - \dfrac{1}{\square} = \dfrac{1}{14}$

$\dfrac{4}{7} - \dfrac{1}{\boxed{2}} = \dfrac{1}{14}$

To find the missing valve, let's add $\dfrac{1}{?}$ to both sides of the equation.

$\dfrac{4}{7} - \dfrac{1}{\square} = \dfrac{1}{14}$ → $\dfrac{4}{7} - \dfrac{\cancel{1}}{\cancel{\square}} + \dfrac{1}{\square} = \dfrac{1}{14} + \dfrac{1}{\square}$

$\dfrac{1}{\square} + \dfrac{1}{14} = \dfrac{4}{7}$

Then, let's subtract $\dfrac{1}{14}$ from both sides of the equation.

$\dfrac{1}{\square} + \dfrac{1}{14} = \dfrac{4}{7}$ → $\dfrac{1}{\square} + \dfrac{\cancel{1}}{\cancel{14}} - \dfrac{\cancel{1}}{\cancel{14}} = \dfrac{4}{7} - \dfrac{1}{14}$

$\dfrac{1}{\square} = \dfrac{4}{7} - \dfrac{1}{14} = \dfrac{8 - 1}{14} = \dfrac{7}{14} = \dfrac{1}{2}$

e. $\dfrac{2}{9} + \dfrac{3}{4} = \dfrac{35}{36}$