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

Convert decimals between standard and expanded form using fractions

a. Write the standard decimal form of

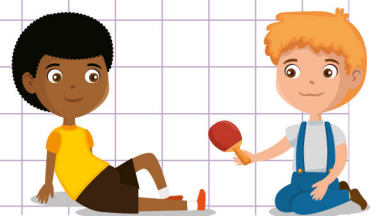$$3 \times \frac{1}{10} + 8 \times \frac{1}{100}$$

b. Write the standard decimal form of

$$7 \times \frac{1}{100} + 5 \times \frac{1}{100}$$

c. Write the expanded form of 0.8

d. Write the expanded form of 7.4

e. Write the expanded form of 12.43

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

Convert decimals between standard and expanded form using fractions

a. Write the standard decimal form of

$$3 \times \frac{1}{10} + 8 \times \frac{1}{100}$$

Solve each expression seperately and convert to decimals

$$\left(3 \times \frac{1}{10}\right) + \left(8 \times \frac{1}{100}\right)$$

$$\frac{3}{10} + \frac{8}{100}$$

$$0.3 + 0.08$$

Finally, let's add both answers

= 0.3 + 0.08 = 0.38

So, $3 \times \frac{1}{10} + 8 \times \frac{1}{100} = 0.38$

b. Write the standard decimal form of

$$7 \times \frac{1}{100} + 5 \times \frac{1}{100}$$

Solve each expression seperately and convert to decimals

$$\left(7 \times \frac{1}{100}\right) + \left(5 \times \frac{1}{100}\right)$$

$$\frac{7}{100} + \frac{5}{100}$$

$$0.07 + 0.05$$

Finally, let's add both answers

= 0.07 + 0.05 = 0.12

So, $7 \times \frac{1}{100} + 5 \times \frac{1}{100} = 0.12$

c. Write the expanded form of 0.8

To solve this, multiply the ones digit by 1, the tenth digit by $\frac{1}{10}$ and separate each place value with a plus sign

So, $0.8 = 0 \times 1 + 8 \times \frac{1}{10}$

d. Write the expanded form of 7.4

To solve this, multiply the ones digit by 1, the tenth digit by $\frac{1}{10}$ and separate each place value with a plus sign

So, $7.4 = 7 \times 1 + 4 \times \frac{1}{10}$

e. Write the expanded form of 12.43

So, $12.43 = 1 \times 10 + 2 \times 1 + 4 \times \frac{1}{10} + 3 \times \frac{1}{100}$