Name_____ Date_____

Fractions To Decimals

Using Equivalent Fractions and Division

Fractions that have a denominator as a decimal place value such as 10, 100, 1000 and so on are easy to write as a decimal.

Example: $\frac{7}{10} = 0.7$ The seven is simply put in the tenths place.

Other fractions that do not have a power of ten as a denominator can not be simply written as the first example.

Example: $\frac{7}{20} \neq 0.7$ Seven over twenty is not equal to 7 tenths or 0.7.

Change the denominator into a power of ten such as a 10, 100, 1000 and so on. Choose a denominator that is easy to work with your existing denominator.

Equivalent Fraction Method

Example: $\frac{7}{20} = \frac{\quad}{100}$

100 is a decimal place value, that is why 20 was changed into 100!

$$\frac{7}{20}\ {}^{\times 5} = \frac{35}{100} = 0.35$$
$$_{\times 5}$$

Division Method

Another way to change a fraction that does not have a power of ten as a denominator is to turn the given fraction into a division problem. Remember, the numerator always goes "under the hat".

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Example: $\frac{7}{20}$ =

A: 20)7

B:
.
20)7.0

C:
.3
20)7.0
−60
10

D:
.3
20)7.00
−60↓
100

E:
.35
20)7.00
−60↓
100
−100
0

$\frac{7}{20} = .35$

Maisonet Math

Directions: Use your knowledge of equivalent fractions to change the following fractions into their decimal equivalents.

Example: $\frac{1}{5} = \frac{1}{5} = \frac{\quad}{10}$ $\frac{1 \times 2}{5 \times 2} = \frac{2}{10} = 0.2$

Tenths is a decimal place value, that is why 10 is used.

1) $\frac{5}{50} = \frac{1}{10}$ ***0.1***

2) $\frac{8}{20} = \frac{4}{10}$ ***0.4***

3) $\frac{12}{60} = \frac{2}{10}$ ***0.2***

4) $\frac{3}{25} = \frac{12}{100}$ ***0.12***

5) $\frac{123}{250} = \frac{492}{1{,}000}$ ***0.492***

6) $\frac{60}{500} = \frac{12}{100}$ ***0.12***

7) $\frac{40}{200} = \frac{20}{100}$ ***0.20 or 0.2***

8) $\frac{22}{25} = \frac{88}{100}$ ***0.88***

9) $\frac{4}{5} = \frac{8}{10}$ ***0.8***

10) $\frac{6}{60} = \frac{1}{10}$ ***0.1***

11) $\frac{24}{80} = \frac{3}{10}$ ***0.3***

12) $\frac{28}{50} = \frac{56}{100}$ ***0.56***

Directions: Turn the following fractions into their decimal equivalents using division to solve.

13) $\frac{5}{50}$ ***0.1***

14) $\frac{8}{20}$ ***0.4***

15) $\frac{12}{60}$ ***0.2***

16) $\frac{3}{25}$ ***0.12***

17) $\frac{123}{250}$ ***0.492***

18) $\frac{60}{500}$ ***0.12***

19) $\frac{40}{200}$ ***0.20 or 0.2***

20) $\frac{22}{25}$ ***0.88***

21) $\frac{4}{5}$ ***0.8***

22) $\frac{6}{60}$ ***0.1***

23) $\frac{24}{80}$ ***0.3***

24) $\frac{28}{50}$ ***0.56***