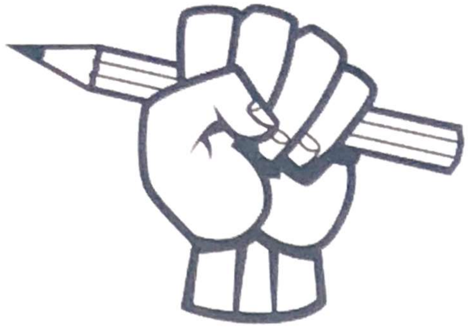
Name: ANSWERS! Period:



Unit 2 Practice/Intervention

Calculators OK

1. Convert each of the below to a **decimal**. Include the negative when necessary!

(a) $\frac{9}{12} = \frac{\div 3}{\div 3} \quad \frac{3}{4} \quad 3 \div 4 = 0.75$

(b) $-\frac{25}{50} = \frac{\div 5}{\div 5} \quad -\frac{5}{10} \quad \frac{\div 5}{\div 5} \quad -\frac{1}{2} \quad -1 \div 2 = -0.5$

(c) $-2\frac{1}{4} = \quad 1 \div 4 = 0.25 \rightarrow -2.25$

(d) $7\frac{3}{5} = \quad 3 \div 5 = 0.6 \rightarrow 7.6$

(e) $\frac{12}{16} = \frac{\div 2}{\div 2} \quad \frac{6}{8} \quad \frac{\div 2}{\div 2} \quad \frac{3}{4} \quad 3 \div 4 = 0.75$

(f) $-\frac{15}{30} = \frac{\div 5}{\div 5} \quad -\frac{3}{6} \quad \frac{\div 3}{\div 3} \quad -\frac{1}{2} \quad -1 \div 2 = -0.5$

2. Convert each of the below to a **fraction**. Simplify if you can!

(a) $0.2 = \frac{2 \div 2}{10 \div 2}$ $\frac{1}{5}$

(b) $0.15 = \frac{15 \div 5}{100 \div 5}$ $\frac{3}{20}$

(c) $0.3 = \frac{3}{10}$

(d) $0.13 = \frac{13}{100}$

(e) $0.4 = \frac{4 \div 2}{10 \div 2}$ $\frac{2}{5}$

(f) $0.35 = \frac{35 \div 5}{100 \div 5}$ $\frac{7}{20}$

Remember! Good way to try to simplify is to try dividing by 5, 3 or 2!

3. Fill in the blank!

a) $0.27 + \frac{25}{100} = \frac{\square}{100} + \frac{25}{100}$ → oops! → 27

b) $\frac{17}{100} - 0.8 = \frac{17}{100} - \frac{\square}{10}$ → 8

c) $0.2 + \frac{75}{100} = \frac{\square}{10} + \frac{75}{100}$ → 2

d) $\frac{3}{10} - 0.47 = \frac{3}{10} - \frac{\square}{100}$ → 47

4. State whether the table below shows a proportional relationships. If it does, write the constant of proportionality.

x	y
0	0
$1\frac{1}{2}$	$\frac{1}{8}$
6	$\frac{1}{2}$
$9\frac{3}{5}$	$\frac{4}{5}$

Calc. friendly fractions!

$\frac{y}{x}$ $\frac{1/8 = 0.125}{1\frac{1}{2} = 1.5} = 0.08333...$

$\frac{y}{x}$ $\frac{1/2 = 0.5}{6 = 6} = 0.08333...$

$\frac{y}{x}$ $\frac{4/5 = 0.8}{9\frac{3}{5} = 9.6} = 0.08333...$

Yes! IT is proportional. Constant is $0.08\overline{3}$

5. State whether the table below shows a proportional relationships. If it does, write the constant of proportionality.

x	y
0	0
$1\frac{1}{2}$	$5\frac{1}{2}$
$2\frac{1}{4}$	$6\frac{1}{4}$
$3\frac{1}{8}$	$7\frac{1}{8}$

Calc. friendly fractions

$\frac{y}{x}$ $\frac{5\frac{1}{2} = 5.5}{1\frac{1}{2} = 1.5} = 3.6666...$

$\frac{y}{x}$ $\frac{6\frac{1}{4} = 6.25}{2\frac{1}{4} = 2.25} = 2.7777...$

NO! It is not proportional

6. State whether the table below shows a proportional relationships. If it does, write the constant of proportionality.

Calc unfriendly fractions

x	y
0	0
$\frac{1}{3}$	6
$\frac{2}{3}$	12
$\frac{5}{6}$	15

$\frac{y}{\cancel{x}} \rightarrow 6 \div \frac{1}{3}$

keep change flip

$\frac{6}{1} \times \frac{3}{1} = \frac{18}{1} = 18$

$\frac{y}{x} \rightarrow 12 \div \frac{2}{3}$

K C F

$\frac{12}{1} \times \frac{3}{2} = \frac{36}{2} = 18$

$\frac{y}{x} \rightarrow 15 \div \frac{5}{6}$

K C F

$\frac{15}{1} \times \frac{6}{5} = \frac{90}{5} = 18$

Yes! It <u>is</u> proportional.

Constant is 18

7. State whether the table below shows a proportional relationships. If it does, write the constant of proportionality.

calc. unfriendly fractions

x	y
0	0
$\frac{1}{6}$	$\frac{2}{3}$
$\frac{2}{3}$	$2\frac{2}{3}$
$8\frac{1}{3}$	$33\frac{1}{3}$

$\frac{y}{x} \rightarrow \frac{2}{3} \div \frac{1}{6}$

KCF

$\frac{2}{3} \times \frac{6}{1} = \frac{12}{3} = 4$

$\frac{y}{x}\ 2\frac{2}{3} \div \frac{2}{3} \rightarrow \frac{8}{3} \div \frac{2}{3}$

KCF

$\frac{8}{3} \times \frac{3}{2} = \frac{24}{6} = 4$

$\frac{y}{x}\ 33\frac{1}{3} \div 8\frac{1}{3} \rightarrow \frac{100}{3} \div \frac{25}{3}$

K C F

$\frac{100}{3} \times \frac{3}{25} = \frac{300}{75} = 4$

Yes! It <u>is</u> proportional

Constant is 4