Rational Numbers Conversion Test Review

Name: Answer Key

Parent Signature: _____ (5 bonus points on test)

① Elsa ran 7 out of 10 days. What percent of the days did she run? (Example 5)

$\frac{7}{10} \overset{\times 10}{=} \frac{70}{100}$ → 70%

② Express each fraction as a decimal.

$3\frac{1}{5} = 3.2$

$\frac{1}{5} = 5\overline{)1.0}$ → .2, -10, 0

or change $3\frac{1}{5}$ to an improper fraction and divide

$3\frac{1}{5} = \frac{16}{5} = 5\overline{)16.0}$ → 3.2, -15, 10, -10, 0

③ Which of the following is a true statement?

A ~~6% = 0.6 = $\frac{3}{50}$~~ 6% = 0.06

B ~~$\frac{4}{5}$ = 0.4 = 40%~~ $\frac{4}{5}$ = 0.8

C ~~0.03 = 3% = $\frac{3}{10}$~~ 0.03 = $\frac{3}{100}$

D $\frac{1}{8}$ = 0.125 = 12.5% ✓

$\frac{1}{8} = 8\overline{)1.000} = 12.5\%$ → .125, -8, 20, -16, 40, -40, 0

④ Raul answered 72% of the questions on his test correctly. Which fraction is equivalent to 72%?

A $\frac{7}{2} = 3.5$

B $\frac{18}{25}$

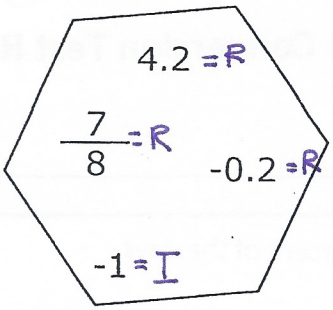
C $\frac{72}{10} = 7.2$

D $\frac{72}{1} = 72$

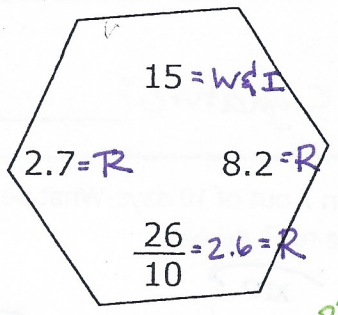
$72\% = \frac{72 \div 4}{100 \div 4} = \frac{18}{25}$

(5) What is the correct classification of the set of numbers in the polygons below?

I. Whole Numbers = W
II. Integers = I
III. Rational Numbers = R



Polygon 1

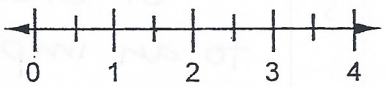


Polygon 2

~~A~~ Polygon 1 contains III only and Polygon 2 contains I and ~~II~~ ← No b/c P1 has R and I
~~B~~ Polygon 1 contains II and III, while Polygon 2 contains only III. ← No b/c P2 has a whole #
(C) Polygon 1 contains II and III, while polygon 2 contains I, II, and III.
~~D~~ Both Polygons contains I, II, and III. ← No b/c P1 does not have whole #'s

(6) If Pepe correctly marked 0.7, $\frac{1}{7}$, 0.07, and $\frac{7}{2}$ on a number line, which was closest to zero?

$\frac{7}{2} = 3.5$



$\frac{1}{7} = 7\overline{)1.000}$ = 0.142...

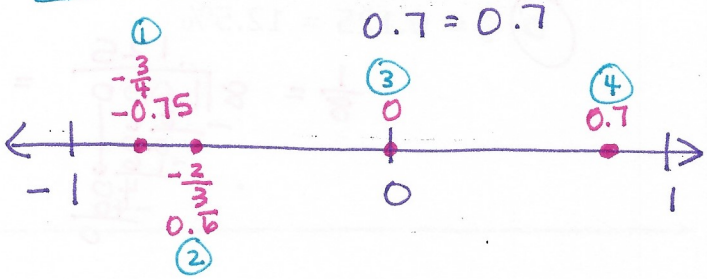
A 0.7
B $\frac{1}{7}$
(C) 0.07
D $\frac{7}{2}$

Least to greatest:
(0.07), $\frac{1}{7}$, 0.7, $\frac{7}{2}$
↑ closest to zero

(7) Which of the following shows the numbers in order from least to greatest?

Ⓐ $-\frac{2}{3}, -\frac{3}{4}, 0.7, 0$
Ⓑ $0.7, 0, -\frac{2}{3}, -\frac{3}{4}$,
Ⓒ $-\frac{2}{3}, -\frac{3}{4}, 0, 0.7$
(Ⓓ) $-\frac{3}{4}, -\frac{2}{3}, 0, 0.7$

$-\frac{2}{3} = -0.666666...$
$-\frac{3}{4} = -0.75$
$0 = 0$
$0.7 = 0.7$



(8) Manuel sold 40% of his baseball collection to buy a new motorcycle. What decimal is equivalent to 40%?

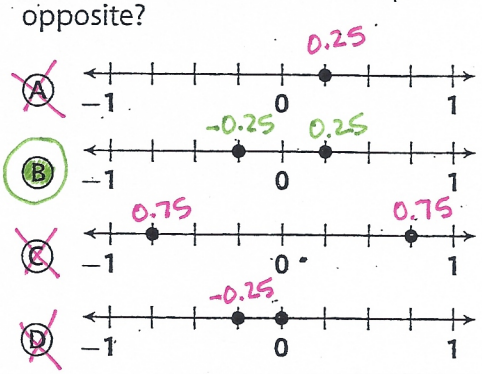
A 0.04
B 4.0
(C) 0.4
D 1.4

40% = 0.4

twice to the left to get the L in decimal

DecimaL ↔ PERCENT

(9) Which number line shows $-\frac{1}{4}$ and its opposite?



$-\frac{1}{4} = -0.25$ $\frac{1}{4} = 0.25$

(10) Darrel is currently 20 feet below sea level. Which correctly describes the opposite of Darrel's elevation?

(A) 20 feet below sea level
(B) 20 feet above sea level
(C) 2 feet below sea level
(D) At sea level

20 ft below = −20

opposite of −20 = 20

Write each decimal as a fraction in simplest form.

(11) 0.25 = $\frac{1}{4}$

$0.25 = \frac{25 \div 25}{100 \div 25} = \frac{1}{4}$

(12) 0.875 = $\frac{7}{8}$

$0.875 = \frac{875 \div 25}{1000 \div 25} = \frac{35 \div 5}{40 \div 5} = \frac{7}{8}$

Express each percent as a decimal.

(13) 325% = 3.25

325% = 3.25
Twice to left

(14) 6.75% = 0.0675

6.75% = 0.0675
twice left

(15) 0.6% = 0.006

0.6%
twice left

DECIMAL ↔ PERCENT

Express each decimal as a percent.

(16) 8.5 = 850%

8.5
twice right to get the R in percent

(17) 2.64 = 264%

2.64
twice right

(18) 0.009 = 0.9%

0.009
twice right

FRACTION	DECIMAL	PERCENT
$\frac{3}{8}$	$\frac{3}{8} = 8\overline{)3} = 0.375$	37.5%
$\frac{3}{5}$	0.6	60%
$\frac{95}{100} = \frac{19}{20}$	0.95	95%
$\frac{125}{1000} = \frac{1}{8}$	0.125	12.5%
$\frac{2}{5}$	0.4	40%
$\frac{88}{100} = \frac{22}{25}$	0.88	88%
$\frac{2}{3}$	$0.\overline{6}$	$66.\overline{6}\%$
$\frac{1}{4}$	0.25	25%
$\frac{1}{9}$	$9\overline{)1} = 0.\overline{1}$	$11.\overline{1}\%$
$1\frac{2}{5}$	1.4	140%
$\frac{3}{8}$	0.375	37.5%

Remember - KhanAcademy.org is a great study resource. They have video lessons and practice quizzes ☺