



# Grade 9 Warm Up

Correct



1) Identify whether the number is rational or irrational

$\frac{3}{4}$	-3.286754....	$1.\overline{66}$	-0.33	1.85
Q	Q	Q	Q	Q

2) Arrange the fractions from least to greatest: (Show work)

$$\frac{15}{18} \quad \frac{-12}{17} \quad \frac{13}{15} \quad \frac{16}{15} \quad \frac{-4}{13} \quad \frac{-3}{11}$$

#183  $\frac{-12}{17}$  #5  $\frac{13}{15}$  #12  $\frac{16}{15}$  #10  $\frac{-4}{13}$  #3  $\frac{-3}{11}$

3) Express decimal as a mixed fraction in simplest form.

$$\frac{4}{10}$$

a)  $0.\overline{4}$   $\times 10$   $\frac{4}{5}$  b) -3.2  $-3\frac{2}{10}$  c)  $-3\frac{1}{5}$  d)  $-32.75 + 18.73 = -14.02$

4) Determine each sum.

$$a) \frac{-6}{5} + \frac{-2}{5}$$

$-1\frac{3}{5}$   $-\frac{8}{5}$

$$b) \frac{-3}{4} \times 3 + \frac{5}{6} \times 2$$

$$c) -3\frac{2}{7} + 2\frac{1}{4}$$

$$d) -32.75 + 18.73 = -14.02$$

$$b) \frac{1}{12}$$

$$-2\frac{3}{7} + \frac{9}{4} \times 7$$

$$-\frac{92}{28} + \frac{63}{28}$$

$$-\frac{29}{28} \text{ or } -1\frac{1}{28}$$



# Grade 9 Warm Up

Correct



1) Identify whether the number is rational or irrational.

$\frac{3}{4}$	-3.286754....	$1.\overline{66}$	-0.33	1.85
#4	#1	#5	#2	0.307

2) Arrange the fractions from least to greatest: (Show work)

$$\frac{15}{18}, \frac{-12}{17}, \frac{13}{15}, \frac{16}{15}, \frac{-4}{13}, \frac{3}{11}$$

$0.\cancel{8}3$     $-0.7\cancel{0}6$     $\# \cancel{6}.0\cancel{0}7$     $\# 3 -0.\cancel{2}\cancel{7} \times 100$

3) Express decimal as a mixed fraction in simplest form.

$$\frac{2}{5}$$

a)  $\frac{0.4}{1} \times 10$    b)  $-3.2$    d)  $-32.75 + 18.73$

4) Determine each sum.

$$a) \frac{-6}{5} + \frac{-2}{5} = \frac{-8}{5}$$

$$-1\frac{3}{5}$$

$$-14\frac{1}{50}$$

b)  $\frac{-3}{4} + \frac{5}{6} \times 10 = \frac{1}{12}$

$$c) -3\frac{2}{7} + 2\frac{1}{4}$$

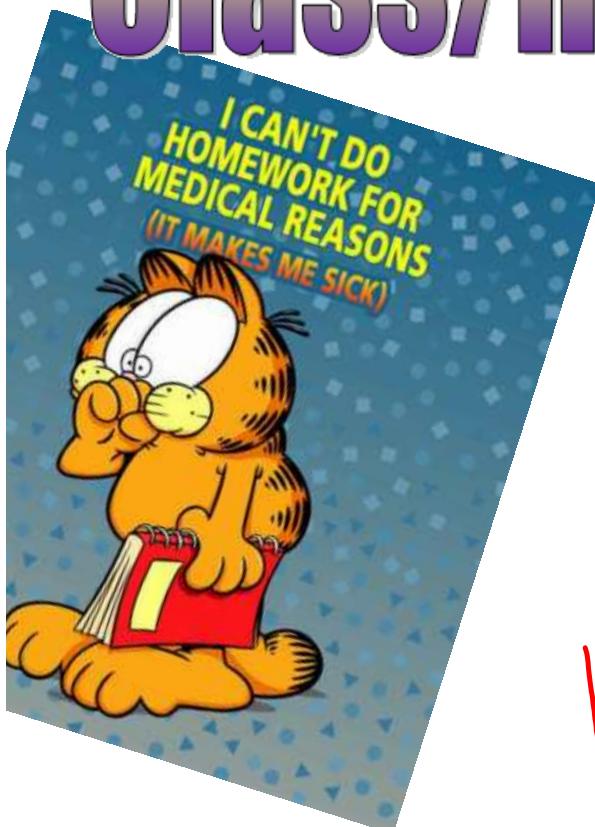
$$\begin{array}{r} \cancel{4} \\ -2\cancel{3} \\ \hline 7 \times 4 \end{array} + \begin{array}{r} \cancel{9} \\ \hline 4 \times 7 \end{array}$$

$$-14.02$$

$$- \frac{92}{28} + \frac{63}{28}$$

$$- \frac{29}{28} = -\left| \frac{1}{28} \right|$$

# Class/Homework



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+6, Face, 8

# 9 d,e, f  
11  
13 c, d  
14a,c  
15 ab

Worksheet

6. Which of the following expressions have

the same answer as  $-\frac{3}{10} - \frac{9}{5}$

How do you know?

$$\frac{-3}{10} - \frac{18}{10} = \frac{-21}{10}$$

a)  ~~$-\frac{3}{10} - \left(-\frac{9}{5}\right)$~~     b)  ~~$\frac{3}{10} - \frac{9}{5}$~~

$-\frac{21}{10}$

$-\frac{18}{10} - \frac{3}{10}$

c)  $-\frac{9}{5} - \frac{3}{10}$

d)  ~~$\frac{9}{5} - \frac{3}{10}$~~

7. Use integers to estimate each difference.

Then, determine each difference.

a)  $10.8 - 3.5$

7.3 ~~-~~

b)  $-37.23 - 48.54$

e)  $-28.31 - 9.72$

f)  $70.59 - (-81.25)$

-38.03

c)  $50.06 - (-14.67)$

64.73

- 8.** On January 25th, 2008, the lowest temperature in Iqaluit, Nunavut, was  $-28.5^{\circ}\text{C}$ .

On the same day, the lowest temperature in Inuvik, Northwest Territories, was  $-33.1^{\circ}\text{C}$ .

- a) What is the difference in these temperatures?

$$+/- 4.6$$

- b) Why are there two possible answers to part a?

9.

d)  $-\frac{19}{6} - \frac{7}{8}$

e)  $\frac{15}{4} - \frac{5}{12}$

f)  $-2\frac{1}{8} - \left( -4\frac{1}{3} \right)$

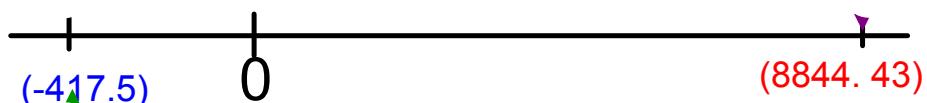
11. In Asia, the lowest point on land is the shore of the Dead Sea, which is 417.5 m below sea level. The highest point is the peak of Mount Everest, which 8844.43 m above sea level.

- a) Write each measurement above as a rational number.

$$-417.5 \text{ m}, 8844.43 \text{ m}$$

- b) Write a subtraction statement that represents the distance between the highest point and the lowest point.

What is this distance?



$$(-417.5) - (8844.43)$$

$$(8844.43) - (-417.5)$$

$$9261.93$$

13) c)  $\left[ -\frac{16}{5} - \left( -\frac{14}{3} \right) \right] + \frac{13}{4}$

d)  $23.5 + (-12.61) - 3.2$

$$\frac{-192}{60} - \left( \frac{-280}{60} \right) + \frac{195}{60}$$

7.69

$$\frac{283}{60}$$

14. Determine a rational number that makes each statement true.

Use a calculator to check your answer.

a)  $-1.2 - \square \leq 3.7$

c)  $\square - 2.9 \geq 5.3$

$$\begin{array}{r} < \\ -1.2 - 5 \\ \hline 3.7 \end{array}$$

8.2

$$-1.2 - 5$$

$$-6.2 \leq 3.7$$

**15.** Determine the missing number in each subtraction statement.

a)  $\square - 28.4 = 37.3$  •  
~~65.7~~

b)  $\frac{9}{10} - \square = \frac{3}{5}$