

Name: \_\_\_\_\_

# Math 9

## Rational Numbers Review

### Developing

Order the Like Fractions from Least to Greatest

1)  $\frac{8}{3}, -\frac{7}{3}, \frac{2}{3}, -\frac{4}{3}, \frac{5}{3}$

\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

2)  $\frac{9}{7}, -\frac{2}{7}, -\frac{4}{7}, \frac{3}{7}, \frac{8}{7}$

\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

3)  $\frac{15}{6}, -\frac{11}{6}, \frac{19}{6}, \frac{17}{6}, -\frac{13}{6}$

\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

4)  $\frac{5}{9}, \frac{2}{9}, -\frac{5}{9}, -\frac{4}{9}, \frac{8}{9}$

\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

5)  $-\frac{8}{5}, \frac{1}{5}, -\frac{2}{5}, -\frac{4}{5}, -\frac{6}{5}$

\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

6)  $-\frac{17}{2}, -\frac{23}{2}, \frac{15}{2}, \frac{27}{2}, \frac{11}{2}$

\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

7)  $\frac{9}{8}, -\frac{7}{8}, \frac{2}{8}, -\frac{2}{8}, \frac{5}{8}$

\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

8)  $\frac{3}{10}, -\frac{3}{10}, \frac{7}{10}, -\frac{7}{10}, -\frac{9}{10}$

\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

9)  $\frac{8}{13}, -\frac{6}{13}, \frac{2}{13}, \frac{5}{13}, \frac{4}{13}$

\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

10)  $-\frac{1}{4}, -\frac{9}{4}, -\frac{3}{4}, -\frac{5}{4}, \frac{7}{4}$

\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

11)  $-\frac{2}{3}, -\frac{8}{3}, \frac{2}{3}, -\frac{4}{3}, \frac{8}{3}$

\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

12)  $-\frac{7}{15}, \frac{7}{15}, -\frac{8}{15}, \frac{8}{15}, \frac{2}{15}$

\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

## Comparing Decimals

Compare each pair of decimals using the symbols  $>$ ,  $<$  or  $=$ .

1)  $43.5$    $43.12$

2)  $-18.49$    $-19.9$

3)  $-21.75$    $-21.7$

4)  $4.63$    $4.3$

5)  $-5.17$    $-5.4$

6)  $-10.3$    $-10.35$

7)  $47.31$    $39.73$

8)  $25.6$    $25.9$

9)  $-24.5$    $-24.51$

10)  $-7.7$    $-6.95$

11)  $36.62$    $36.4$

12)  $-29.3$    $-29.27$

13)  $12.7$    $12.8$

14)  $-6.1$    $6.1$

15)  $-40.2$    $-40.24$

16)  $28.5$    $28.3$

## Rational Numbers Review

**Find each sum.**

1)  $\left(-\frac{6}{5}\right) + \frac{3}{2}$

2)  $\frac{1}{2} + \left(-3\frac{2}{5}\right)$

**Find each difference.**

3)  $\frac{1}{2} - \frac{2}{3}$

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

**Find each sum.**

5)  $4.9 + (-3)$

6)  $(-3.8) + 1.1$

**Find each difference.**

7)  $(-2.4) - (-2.9)$

8)  $(-3.64) - 4.5$

**Find each product.**

9)  $\left(-\frac{5}{4}\right)\left(\frac{3}{4}\right)$

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

**Find each quotient.**

$$11) \frac{1}{3} \div \frac{3}{2}$$

$$12) 2\frac{2}{5} \div \frac{4}{3}$$

**Find each product.**

$$13) (-1.7)(-2.5)$$

$$14) (-1.8)(1.3)$$

**Find each quotient.**

$$15) 0.8 \div -2$$

$$16) -0.91 \div 0.5$$

**Evaluate each expression.**

$$17) \frac{3}{4} - \frac{-3}{2} \times -1\frac{1}{4}$$

$$18) \left(\frac{3}{2} - \frac{1}{2}\right) \div -1\frac{1}{2}$$

$$19) (0.7 - 3) \times -3.4$$

$$20) (-2.3 - 2.6)^2$$

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Rational Numbers Review

Proficient

Order the Unlike Fractions from Greatest to Least

1)  $\frac{5}{6}, -\frac{1}{4}, -\frac{3}{7}, \frac{2}{3}$

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

2)  $\frac{3}{5}, -\frac{2}{3}, -\frac{1}{2}, \frac{3}{4}$

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

3)  $-\frac{1}{9}, -\frac{5}{6}, -\frac{1}{2}, \frac{7}{3}$

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

4)  $\frac{3}{10}, -\frac{5}{4}, -\frac{2}{5}, -\frac{1}{2}$

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

5)  $\frac{2}{11}, -\frac{3}{8}, \frac{1}{7}, \frac{5}{12}$

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

6)  $\frac{5}{6}, \frac{1}{2}, \frac{3}{4}, -\frac{7}{8}$

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

7)  $-\frac{2}{5}, -\frac{3}{10}, \frac{1}{2}, \frac{1}{4}$

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

8)  $-\frac{9}{16}, \frac{5}{6}, -\frac{3}{8}, \frac{5}{12}$

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

9)  $\frac{3}{2}, \frac{7}{9}, \frac{11}{18}, -\frac{7}{6}$

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

10)  $\frac{3}{4}, \frac{1}{6}, -\frac{1}{5}, -\frac{2}{3}$

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

11)  $-\frac{5}{14}, -\frac{1}{12}, \frac{9}{10}, \frac{7}{16}$

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

12)  $-\frac{7}{2}, -\frac{7}{3}, \frac{7}{4}, \frac{7}{5}$

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

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## Comparing Decimals

Compare each pair of decimals using the symbols  $>$ ,  $<$  or  $=$ .

1) 11.038  11.03

2) -39.26  -39.16

3) 1.22  1.221

4) 25.001  25.01

5) -30.359  -29.349

6) -3.43  -3.425

7) 6.44  6.41

8) 17.612  17.62

9) 33.101  33.201

10) 4.298  -4.298

11) -8.012  -8.03

12) -40.9  -50.9

13) -12.7  -12.7

14) -38.01  -38.001

15) 49.28  49.82

16) 7.34  7.343

## Rational Numbers Review

**Evaluate each expression.**

1)  $1\frac{7}{8} - 4\frac{1}{2}$

2)  $2\frac{2}{3} - \frac{5}{7}$

3)  $\frac{3}{5} - 2 - \frac{1}{3}$

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

5)  $(-8.14) + 9.2$

6)  $(-1.9) - (-2.2)$

7)  $(-2.5) + 3.8 + 5$

8)  $(-2.76) + (-1.9) - 2.3$

**Find each product.**

9)  $(-2)\left(-\frac{4}{7}\right)$

10)  $\left(\frac{4}{7}\right)\left(-\frac{1}{2}\right)$

**Find each quotient.**

11)  $\frac{5}{3} \div -1\frac{1}{3}$

12)  $\frac{4}{3} \div -1\frac{3}{7}$

**Find each product.**

13)  $(-4.3)(-3.6)$

14)  $(6.22)(-3.2)$

**Find each quotient.**

15)  $-6.3 \div -3.5$

16)  $1.9 \div -2.5$

**Evaluate each expression.**

17)  $\left(-1\frac{3}{4} - 2\frac{1}{3}\right) \times 2 \div -1\frac{3}{4}$

18)  $\frac{-4}{5} \left(\frac{11}{6} - 1\right)^2$

19)  $-2.1 \div -1.4 - 4 \times 0.5$

20)  $5.96 + (5.6 + 0.2) \times -4.6$



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Extending

**Order the Unlike Fractions from Greatest to Least**

1) $\frac{2}{3}, \frac{7}{6}, -\frac{1}{2}, -\frac{3}{4}, \frac{5}{8}$ ____, _____, _____, _____, _____	2) $\frac{7}{18}, -\frac{7}{6}, \frac{3}{4}, -\frac{5}{9}, \frac{5}{12}$ ____, _____, _____, _____, _____
3) $-\frac{2}{5}, \frac{7}{10}, -\frac{3}{25}, -\frac{4}{15}, -\frac{1}{20}$ ____, _____, _____, _____, _____	4) $\frac{9}{16}, \frac{5}{8}, -\frac{7}{12}, -\frac{3}{4}, \frac{11}{24}$ ____, _____, _____, _____, _____
5) $-\frac{4}{27}, \frac{4}{18}, -\frac{1}{6}, -\frac{5}{9}, -\frac{5}{36}$ ____, _____, _____, _____, _____	6) $-\frac{2}{5}, -\frac{2}{3}, \frac{9}{10}, \frac{7}{4}, \frac{1}{2}$ ____, _____, _____, _____, _____
7) $\frac{3}{8}, -\frac{5}{6}, \frac{1}{4}, -\frac{11}{12}, \frac{2}{5}$ ____, _____, _____, _____, _____	8) $\frac{9}{10}, -\frac{21}{50}, \frac{19}{30}, -\frac{17}{20}, -\frac{9}{40}$ ____, _____, _____, _____, _____
9) $-\frac{9}{11}, -\frac{5}{12}, -\frac{13}{18}, -\frac{7}{10}, \frac{2}{7}$ ____, _____, _____, _____, _____	10) $\frac{5}{26}, -\frac{15}{23}, -\frac{2}{11}, -\frac{4}{13}, \frac{16}{21}$ ____, _____, _____, _____, _____
11) $-\frac{3}{4}, -\frac{9}{2}, \frac{5}{7}, -\frac{7}{5}, \frac{1}{3}$ ____, _____, _____, _____, _____	12) $\frac{3}{15}, \frac{2}{5}, -\frac{11}{45}, \frac{23}{30}, \frac{47}{60}$ ____, _____, _____, _____, _____

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## Comparing Decimals

Compare each pair of decimals using the symbols  $>$ ,  $<$  or  $=$ .

1) 32.4893  32.489

2) -16.678  -16.5

3) -24.59  -24.7641

4) -45.87  -45.8

5) -6.7  -6.474

6) 36.956  37.2325

7) 15.1  15.1

8) -20.5345  -20.1045

9) -48.5328  -50.354

10) 9.168  -9.168

11) 36.4  36.2683

12) -27.2713  -27.895

13) -19.2367  -19.236

14) 31.58  30.999

15) 8.989  8.7985

16) -42.5  -42.9

## Rational Numbers Review

Evaluate each expression.

1)  $\left(-1\frac{1}{2}\right) - \left(-\frac{3}{8}\right) - 11$

2)  $\left(-\frac{11}{6}\right) + \left(-\frac{7}{4}\right) + \frac{1}{4}$

3)  $5\frac{4}{9} - 2\frac{3}{7} + \frac{1}{8} - 3\frac{4}{7}$

4)  $\left(-\frac{7}{8}\right) + \frac{5}{4} - 1 + \frac{2}{9}$

5)  $(-1.8) - (-1.1) - 10$

6)  $6.1 + (-8.8) + 2.4$

7)  $(-4.8) - (-7.4) + 1.235 - (-7.9)$

8)  $8.5 - 0.2 - (-8.95) + (-6.7)$

Find each product.

9)  $(2)\left(-1\frac{1}{6}\right)\left(\frac{1}{2}\right)$

10)  $(-5)\left(\frac{5}{4}\right)\left(-\frac{4}{7}\right)$

**Find each quotient.**

$$11) \frac{-2\frac{1}{2}}{3\frac{4}{5}}$$

$$12) \frac{7\frac{3}{8}}{\frac{8}{7}}$$

**Find each product.**

$$13) (-2.2)(-1.8)(2.5)$$

$$14) (1.81)(-1.5)(8)$$

**Find each quotient.**

$$15) \frac{-7.8}{6.5}$$

$$16) \frac{1.3}{-0.8}$$

**Evaluate each expression.**

$$17) -3\frac{1}{3} + \left(-2\frac{6}{7}\right)^2 - \left(1\frac{2}{3} - -\frac{1}{2}\right)$$

$$18) \left(\frac{2}{3} - \frac{2}{7}\left(1 + \frac{3}{2}\right)\right) \times 3\frac{9}{10}$$

$$19) 7.2 \times -5.6 - (-6.7 - -0.2 \times -2)$$

$$20) 0.6 - 7.6 - (2.9 - -0.7)^2$$