

Show All Work!
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Name: KEY
Date: _____

Mathematics 9 - Chapter 1 Practice Test
/49

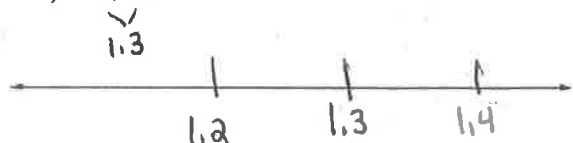
1. Order the following rational numbers from least to greatest (3 marks).

$-\frac{6}{5}, 1.2, -1.1, -\frac{1}{4}, 0.2, -1\frac{3}{8}$ easier to compare if you convert all to decimals
 $-1.2, 1.2, -1.1, -0.25, 0.2, -1.375$

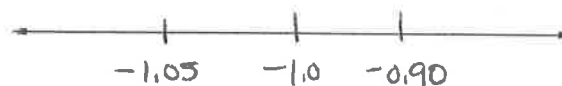
Least $\xrightarrow{\hspace{10em}}$ greatest
 $-1\frac{3}{8}, -\frac{6}{5}, -1.1, -0.25, 0.2, 1.2$

2. Identify a rational number between each pair of numbers (1 mark each). Sketch a number line to illustrate each answer (1 mark each).

a) 1.2, 1.4



b) $-1.05, -\frac{9}{10}, -1.05, -1.0, -0.90$



3. Convert each fraction to a decimal to 2 decimal places (1 mark each):

a) $\frac{3}{4}$ 0.75

b) $-\frac{3}{8}$ -0.375

4. Convert each fraction to a percent (1 mark each):

d) $\frac{3}{3}$ $3 \div 3 = 1 \times 100 = 100\%$

e) $\frac{63}{100}$ $63 \div 100 \times 100 = 63\%$

5. Convert each decimal to a fraction (1 mark each):

f) 0.70 $\frac{70}{100} = \frac{7}{10}$

g) 0.03 $\frac{3}{100}$

6. Calculate the square root for each of the following, round to 2 decimal points if necessary (1 mark each):

h) $\sqrt{81}$ 9

i) $\sqrt{239}$ 15.46

7. Determine each sum.

a) $8.37 + 0.58$ (1 mark)

8.95

b) $\frac{5^{1/4}}{8^{1/4}} + \left(-\frac{1}{9}\right)^{1/8}$ (2 marks)

$\frac{45}{72} + \left(-\frac{8}{72}\right)$

$\frac{45}{72} - \frac{8}{72}$

$\frac{37}{72}$

c) $-\frac{3^{1/3}}{4^{1/3}} + \frac{2 \times 4}{3 \times 4}$ (2 marks)

$-\frac{9}{12} + \frac{8}{12}$

$-\frac{1}{12}$

d) $-8\frac{1}{4} + 5\frac{1}{5}$ (2 marks)

$-\frac{33 \times 5}{4 \times 5} + \frac{26 \times 4}{5 \times 4}$

$-\frac{165}{20} + \frac{104}{20}$

$-\frac{61}{20}$ or $-3\frac{1}{20}$

8. Determine each difference.

a) $-112.2 - (-14.8)$ (1 mark)

$-112.2 + 14.8$

-97.4

b) $\frac{2^{1/2}}{5^{1/2}} - \frac{9}{10}$ (2 marks)

$\frac{4}{10} - \frac{9}{10}$

$-\frac{5}{10} =$ $-\frac{1}{2}$

c) $\frac{23}{8} - \left(-\frac{7}{2}\right)^{1/4}$ (2 marks)

$\frac{23}{8} + \frac{28}{8}$

$\frac{51}{8}$ or $6\frac{3}{8}$

d) $3\frac{5}{6} - \left(-2\frac{2}{3}\right)$ (2 marks)

$\frac{23}{6} + \frac{8}{3}$

$\frac{23}{6} + \frac{16}{6}$

$\frac{39}{6} = \frac{13}{2}$

$6\frac{1}{2}$

9. Determine each product. (2 marks each)

a) $(-14.6)(2.5)$

$$\boxed{-36.5}$$

b) $\left(\frac{9}{5}\right)\left(6\frac{1}{3}\right)$

$$\left(\frac{\cancel{3}9}{5}\right)\left(\frac{19}{\cancel{3}1}\right)$$

$$\boxed{\frac{57}{5}}$$

or

$$\boxed{11\frac{2}{5}}$$

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

$$= \frac{10}{6}$$

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

or $\boxed{-1\frac{2}{3}}$

d) $-3 \times \left(\frac{4}{-6}\right)$

$$\frac{-3}{1} \times -\frac{4}{6}$$

$$\frac{12}{6}$$

or $\boxed{2}$

10. Determine each quotient. (2 marks each)

a) $(-8.64) \div (-2.7)$

$$\boxed{3.2}$$

b) $2 \div \frac{3}{7}$

$$\frac{2}{1} \times \frac{7}{3}$$

$$\boxed{\frac{14}{3}}$$

c) $\left(-\frac{5}{12}\right) \div \left(-8\frac{1}{3}\right)$

$$\frac{-5}{12} \div -\frac{25}{3}$$

$$\frac{-5}{12} \times -\frac{3}{25}$$

$$\boxed{\frac{1}{20}}$$

d) $\left(-\frac{3}{4}\right) \div \left(-\frac{6}{5}\right)$

$$\frac{-3}{4} \times -\frac{5}{6}$$

$$\boxed{\frac{5}{8}}$$

11. Evaluate. (2 marks each)

a) $2.3 + (-11.2) \div (-0.2) - 3.7$

$$2.3 + 56 - 3.7$$

$$\boxed{54.6}$$

b) $\left(-\frac{2}{3}\right) \div \left[\frac{1}{4} + \left(-\frac{1}{2}\right)\right] \times \frac{1}{3}$

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

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

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

$$\boxed{\frac{8}{9}}$$