

Basic Math 9 Assessment

Name Key

Date _____ Block _____

This test is to discover your strengths and weaknesses in math skills. **It will not affect your grade.** Take your time. Show your work. Do not use a calculator.

Addition & Subtraction

$$1. \begin{array}{r} 11 \\ 164 \\ + 49 \\ \hline 213 \end{array}$$

$$2. \begin{array}{r} 4 \\ 254 \\ - 49 \\ \hline 205 \end{array}$$

3. $2.5 + 16.5 =$

$$\begin{array}{r} 16.5 \\ + 2.5 \\ \hline 19.0 \end{array}$$

4. $83.2 - 16.36 =$

$$\begin{array}{r} 83.20 \\ - 16.36 \\ \hline 66.84 \end{array}$$

Multiplication

$$1. \begin{array}{r} 5 \\ 28 \\ \times 7 \\ \hline 196 \end{array}$$

$$2. \begin{array}{r} 4 \\ 36 \\ \times 18 \\ \hline 288 \\ 360 \\ \hline 648 \end{array}$$

3. $22.45 \times 100 = 2245$

4. $34.4 \times 0.6 =$

$$\begin{array}{r} 34.4 \\ \times 0.6 \\ \hline 20.64 \end{array}$$

Division

$$1. \begin{array}{r} 2 \\ 8 \overline{)16} \\ \underline{16} \\ 0 \end{array}$$

$$2. \begin{array}{r} 2432 \\ 3 \overline{)7296} \\ \underline{66} \\ 12 \\ \underline{12} \\ 09 \\ \underline{06} \\ 30 \end{array}$$

3. $25 \div 0.5 =$

50

$$0.5 \overline{)25} \xrightarrow{\times 10} 5 \overline{)250} \xrightarrow{\times 10} 50 \overline{)2500}$$

4. $185 \div 10 = 18.5$

Integers: Add / Subtract

1. $-8 + 2 = -6$

2. $11 - (-7) = 18$

3. $-5 - 15 = -20$

4. $(-6) + (-13) = -19$

5. $-9 - (-8) = -1$

6. $21 - 50 = -29$

$$\begin{array}{r} 46 \\ 50 \\ - 21 \\ \hline 29 \end{array}$$

Multiply/Divide

1. $(6) \times (-2) = -12$

2. $(-10)(-4) = 40$

3. $(-1)(-6)(-3) = -18$

4. $-35 \div -7 = 5$

5. $48 \div (-12) = -4$

6. $(-48) \div 6 \times (-3) =$

$$\begin{array}{l} -8 \times -3 \\ = 24 \end{array}$$

Pre-algebra

1. $7^2 = 49$

2. $\sqrt[3]{216} = 6$

3. $\sqrt{225} = 15$

4. Finish the pattern:
1, 3, 9, 27, 81, 243, 729

$$\begin{array}{r} 81 \\ \times 3 \\ \hline 243 \end{array} \quad \begin{array}{r} 243 \\ \times 3 \\ \hline 729 \end{array}$$

Fractions

1. $\frac{5}{8} - \frac{3}{8} = \frac{2}{8} = \frac{1}{4}$

2. $\frac{2}{3} \times \frac{13}{4} = \frac{8+9}{12} = \frac{17}{12} = 1\frac{5}{12}$

3. Change $3\frac{5}{8}$ to an improper fraction.

$\frac{29}{8}$

4. Change $\frac{15}{2}$ to a mixed number.

$7\frac{1}{2}$

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

6. $\frac{3}{4} \div 5 = \frac{3}{4} \times \frac{1}{5} = \frac{3}{20}$

Algebra

1. $m - 6 = 11$
 $+6 \quad +6$

$m = 17$

2. $3x + 12 = 27$
 $-12 \quad -12$

$\frac{3x}{3} = \frac{39}{3}$
 $x = 13$

3. $\frac{m}{8} = 7 - 2$

$m = -16$

4. $\frac{m}{4} = \frac{16}{2}$

$m = \frac{4 \times 16}{2} = 32$

5. $\frac{3}{5}x = 12$

$\frac{3x}{3} = \frac{5 \times 12}{3}$
 $x = 20$

Coordinate Grids & Number Value

1. Compare: use <, > or =

a. $-75 < -45$ e. $\frac{1}{3} > \frac{1}{4}$

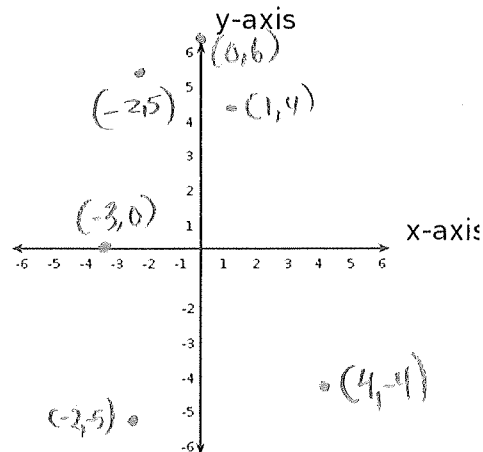
b. $1.53 > 1.35$

c. $0.\bar{6} = \frac{2}{3}$

d. $\frac{1}{4} < \frac{3}{4}$

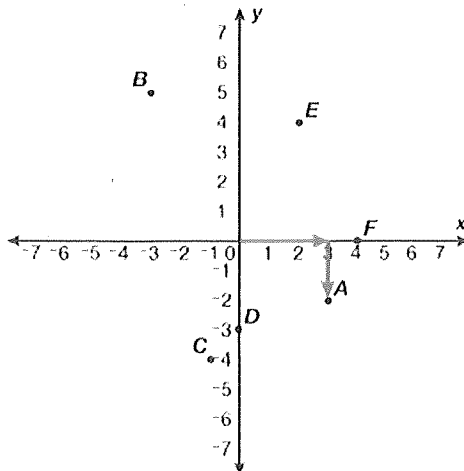
2. Plot the following points on the coordinate grid below. Label with the coordinates.

- $(-2, -5)$ $(0, 6)$ $(-2, 5)$ $(1, 4)$ $(-3, 0)$ $(4, -4)$



3. List the ordered pairs for the points A to F in the graph below. i.e. $(0, 0)$

- $A = (3, -2)$ $B = (-3, 5)$ $C = (-1, -4)$ $D = (0, -3)$ $E = (2, 4)$ $F = (4, 0)$



Label number line and then place the following numbers on the number line below.

- $-2\frac{1}{4}$, 1.5, $-\frac{3}{4}$, -3, $\frac{2}{3}$

