

ANSWERS TO THE SECOND QUIZ

1. Evaluate: $\left(-\frac{3}{4}\right)\left(\frac{2}{-9}\right)$

Solution. First we determine the sign of the product. Since we have two negative signs the answer will be a positive number. So we have:

$$\begin{aligned} \left(-\frac{3}{4}\right)\left(\frac{2}{-9}\right) &= \overset{1}{\cancel{3}} \overset{1}{\cancel{2}} \overset{2}{4} \overset{3}{9} \\ &= \frac{2}{3} \end{aligned}$$

□

2. Evaluate: $\frac{8}{15} \div \frac{-12}{25}$

Solution. The answer will be negative. We have:

$$\begin{aligned} \frac{8}{15} \div \frac{-12}{25} &= -\frac{8}{15} \div \frac{12}{25} \\ &= -\frac{8}{15} \cdot \frac{25}{12} \\ &= -\overset{2}{\cancel{8}} \overset{5}{\cancel{25}} \overset{3}{15} \overset{3}{\cancel{12}} \\ &= -\frac{10}{9} \end{aligned}$$

□

3. Evaluate each of the following expressions. If an operation is *undefined* state so.

(a) $\frac{0}{6} = 0$

(b) $\frac{5}{0}$ Undefined.

(c) $(-1)^{24567} = -1$

(d) $3^0 = 1$

(e) $0^0 = 1$

(f) $(-4)^2 = 16$

(g) $-3^2 = -9$

(h) $-(-(-(-2))) = 2$

(i) $\sqrt{81} = 9$

(j) $\sqrt{-9}$ Not a real number.

(k) $\sqrt{(-2)^2} = \sqrt{4} = 2$

4. Circle the *irrational* numbers: $\frac{4}{7}, \sqrt{7}, \pi, \sqrt{4}, 3.46, \sqrt{2} - 34$