

November 10, 2014^{1st}_{2nd}

Starter

If 3 green chips have the same value as 5 blue chips,
2 red chips have the same value as 1 yellow chip,
and 4 red chips have the same value as 3 green chips,
how many blue chips can you get for 8 yellow chips?



Gypsy

$$\begin{aligned}
 (14) \quad & \left[\left(\frac{3}{4} \right)^2 - 1 \frac{1}{2} \right] \left(-\frac{1}{4} \right) \\
 & = \left[\frac{9}{16} - 1 \frac{1}{2} \right] \left(-\frac{1}{4} \right) \\
 & = \frac{-15}{16} \left(-\frac{1}{4} \right) \\
 & = \frac{15}{64}
 \end{aligned}$$

$$\begin{array}{r}
 \frac{3}{4} - \frac{3}{4} \\
 = \frac{9}{16}
 \end{array}
 \quad
 \begin{array}{r}
 \cancel{1} \frac{1}{2} \quad \frac{24}{16} \\
 + \frac{9}{16} \quad \frac{9}{16} \\
 \hline
 - \frac{15}{16}
 \end{array}$$

11/10 - Evaluating Expressions using Rational Numbers

To do “evaluate” problems:

1. Write the problem.
2. Rewrite, substituting values.
3. Work problem step by step.
4. Circle the answer.

$$a = \frac{-2}{3} \quad b = \frac{1}{4} \quad c = 2\frac{1}{2} \quad d = -1\frac{1}{6}$$

$$\begin{aligned} & c + a \\ &= 2\frac{1}{2} + \left(\frac{-2}{3}\right) \\ &= \frac{15}{6} \end{aligned}$$

$$\begin{array}{r} \cancel{2} \frac{1}{2} \quad \frac{9}{6} \\ - \quad \frac{2}{3} \quad \frac{4}{6} \\ \hline \quad \quad \frac{5}{6} \end{array}$$

$$a = -\frac{2}{3} \quad b = \frac{1}{4} \quad c = 2\frac{1}{2} \quad d = -1\frac{1}{6}$$

$$\begin{aligned} & a^2 - d \\ &= \left(-\frac{2}{3}\right)^2 - \left(-1\frac{1}{6}\right) \\ &= \frac{4}{9} + 1\frac{1}{6} \\ &= \frac{11}{6} \end{aligned}$$

$$\begin{array}{r} \frac{1}{6} \cdot \frac{3}{3} \\ \hline \frac{4}{9} \quad \frac{8}{18} \\ \hline \frac{11}{18} \end{array}$$

$$a = \frac{-2}{3} \quad b = \frac{1}{4} \quad c = 2\frac{1}{2} \quad d = -1\frac{1}{6}$$

$$\begin{aligned} & 2d + 3b \\ &= 2\left(-1\frac{1}{6}\right) + 3\left(\frac{1}{4}\right) \\ &= -2\frac{1}{3} + \frac{3}{4} \\ &= \boxed{-1\frac{7}{12}} \end{aligned}$$

$$\begin{aligned} & \cancel{2} \frac{1}{1} \cdot \frac{-7}{6} & \frac{3}{1} \cdot \frac{1}{4} \\ &= -\frac{7}{3} &= \frac{3}{4} \\ &= -2\frac{1}{3} \\ & \begin{array}{r} \cancel{2} \frac{1}{3} \frac{4}{12} \\ + \frac{3}{4} \frac{9}{12} \\ \hline -1 \frac{7}{12} \end{array} \end{aligned}$$

Homework

Green WS 10
evens only

Due Tuesday
end of class