

Answer on Question #54115 – Math – Algebra

Max bought $2\frac{3}{4}$ pounds green apples, $1\frac{5}{8}$ pounds yellow apples, and $1\frac{5}{8}$ pounds red apples. The total cost was \$5.40. What is the cost for one pound of apples if all apples cost the same amount per pound?

Solution

Total amount of apples which Max bought is

$$2\frac{3}{4} + 1\frac{5}{8} + 1\frac{5}{8} = \frac{2\cdot 4+3}{4} + \frac{1\cdot 8+5}{8} + \frac{1\cdot 8+5}{8} = \frac{11}{4} + \frac{13}{8} + \frac{13}{8} = \frac{11\cdot 2+13+13}{8} = \frac{22+13+13}{8} = \frac{48}{8} = 6 \text{ pounds}$$

If all apples cost the same amount per pound, then cost per pound is $\frac{\$5.40}{6} = \mathbf{\$0.9}$.

Answer: \$0.9.

If you typed $\frac{23}{4} + \frac{15}{8} + \frac{15}{8} = \frac{2\cdot 23+15+15}{4} = \frac{46+15+15}{4} = \frac{76}{4} = 19$ pounds, then cost per pound is

$$\frac{\$5.40}{19} \approx \$0.28.$$