

2. A health food store mixes granola and raisins to make 20 pounds of raisin granola. Granola costs them \$4 per pound and raisins cost them \$5 per pound. How many pounds of each should they include if they want the mixture to cost them a total of \$85? Write a system of two equations and solve.

$$\begin{array}{r}
 4G + 5R = 85 \\
 -4(G + R = 20) \rightarrow \\
 \hline
 G + 5R = 20 \\
 -G \quad -5R \\
 \hline
 R = 5
 \end{array}$$

$$\begin{array}{r}
 4G + 5R = 85 \\
 + \quad -4G + 4R = -80 \\
 \hline
 R = 5
 \end{array}$$

$$\begin{array}{r}
 G + 5R = 20 \\
 -5R \quad -5R \\
 \hline
 G = 15
 \end{array}$$

$$\begin{array}{r}
 4(15) + 5(5) = 85 \\
 85 = 85 \checkmark
 \end{array}$$

5 lbs Raisin
15 lbs Granola

3. A local gym charges nonmembers \$10^h per hour to use the tennis courts. Members pay a yearly fee of \$300 and \$4 per hour for using the tennis courts. Write and solve an equation to find how many hours you must use the tennis courts for both plans to cost the SAME amount. Show your work!

non member:

$$C = 10h$$

member:

$$C = 4h + 300$$

$$\begin{array}{r}
 10h = 4h + 300 \\
 -4h \quad -4h \\
 \hline
 6h = 300 \\
 \frac{6h}{6} = \frac{300}{6} \\
 h = 50
 \end{array}$$

50 hours

At what price are they equal? $C = 10(50) = 500$
\$500

7.4 Homework

7.4 Basic Algebra Word Problem
wkst #1-7