

# Unit 3 Embedded Assessment #1 "Cost of After-School Activities" (p. 157)

- 1a. Security guard \$52.50/hour  
Deejay \$50.98 + \$23.50/hour  
Dance = 3 hours

Distributive Property:

$$3(52.50 + 23.50) + 50.98$$

↓                      ↓                      ↓                      ↓

hours      Security Guard per hour      Deejay per hour      Deejay fee

1b.  $3(52.50 + 23.50) + 50.98$   
 $3(76) + 50.98$   
 $228 + 50.98$   
 $= \$278.98$  Security and Deejay

1c. Refreshments \$2.25/stu.  
95 students attending

$$\begin{array}{r} 2.25 \\ \times 95 \\ \hline 1125 \\ + 20250 \\ \hline \$213.75 \end{array} = \$213.75$$

Refreshments

1d. Decorations \$189.26  
Security & Deejay \$278.98  
Refreshments \$213.75

Expression:

$$\$189.26 + \$278.98 + \$213.75$$

1e. Find total cost: 189.26  
 278.98  
 + 213.75  
 \$681.99 needed

$$\begin{array}{r} 681.99 \\ - 349.49 \text{ (amount Student Council raised so far)} \\ \hline \end{array}$$

\$332.50 still needed

2. Need \$332.50 spread over 95 students.

\$3.50 per student at very least.

$$\begin{array}{r} 95 \overline{) 332.50} \\ \underline{285} \phantom{00} \\ 475 \phantom{00} \\ \underline{475} \phantom{00} \\ 00 \\ \underline{- 0} \\ 0 \end{array}$$

3.  $50 - 30 - 4 \times 2 + 10$

$$50 - 30 - 8 + 10$$

$$20 - 8 + 10$$

$$12 + 10$$

$$= 22 \text{ Terry is correct.}$$

4a.

95 students  
\$475 in ticket sales

$$\begin{array}{ccc} 95 & x & = & 475 \\ \downarrow & \downarrow & & \downarrow \\ \text{students} & \text{price} & & \text{ticket} \\ & \text{per} & & \text{sales} \\ & \text{ticket} & & \end{array}$$

4b.

$$95x = 475$$

$$95(\$4) = 475$$

$$380 \neq 475$$

$$95(\$4.50) = 475$$

$$427.50 \neq 475$$

$$95(\$5) = 475$$

$$475 = 475$$

$$x = \$5.00$$

price per  
ticket