

Page 27

$$\#1. \quad \frac{\$1053.00}{12 \text{ sinks}} = \$87.75 / \text{sink}.$$

$$\#2. \quad \begin{array}{ccc} \frac{19.99}{7 \text{ Kg}} & \frac{35.95}{14 \text{ Kg}} & \frac{60.99}{21 \text{ Kg}} \\ \$2.86 / \text{Kg} & \$2.57 / \text{Kg} & \$2.43 / \text{Kg} \end{array}$$

\Rightarrow Package #3 has lowest cost

$$\#3. \quad \begin{array}{cc} \frac{\$120.00}{4} & \frac{192.00}{6} \\ = \$30.00 / \text{lock} & = \$32.00 / \text{lock} \end{array}$$

\Rightarrow First Supplier is Cheaper. Quality, Style.

$$\#4. \quad (a) \quad \begin{array}{ccc} \frac{9.98}{1} & \frac{15.49}{2} & \frac{22.99}{3} \\ = 9.98 / \text{shirt} & 7.46 / \text{shirt} & 7.66 / \text{shirt} \end{array}$$

Supplier #1 has lowest cost

$$\begin{array}{r} \#3. \quad \$120.00 \\ \quad \quad \quad 4 \\ \hline = \$30.00/\text{lock.} \end{array} \qquad \begin{array}{r} 192.00 \\ \quad \quad \quad 6 \\ \hline = \$32.00/\text{lock.} \end{array}$$

⇒ First Supplier is Cheaper. Quality, Style.

$$\begin{array}{r} \#4. \quad (a) \quad 9.98 \\ \quad \quad \quad 1 \\ \hline = 9.98/\text{shirt} \end{array} \qquad \begin{array}{r} 15.49 \\ \quad \quad \quad 2 \\ \hline = 7.46/\text{shirt} \end{array} \qquad \begin{array}{r} 22.99 \\ \quad \quad \quad 3 \\ \hline = 7.66/\text{shirt} \end{array}$$

$$\begin{array}{l} (b) \quad 3(2\text{Shirt}) \quad 1(1\text{Shirt}) = \$56.45 \\ \quad \quad 2(3\text{Shirt}) \quad 1(1\text{Shirt}) = \$55.96 \\ \quad \quad 1(3\text{Shirt}) \quad 2(2\text{Shirt}) = \boxed{\$53.97} \end{array}$$

#5. $\frac{7.50}{0.5 \text{ Kg}}$ $\frac{12.50}{1 \text{ Kg}}$ $\frac{19.50}{1.5 \text{ Kg}}$
 \$15/Kg \$12.50/Kg. \$13/Kg

(a) 2nd Package.
 (b)

1Kg + 1.5Kg
 12.50 + 19.50
 \$32.00

0.5 + 0.5 + 1.5
 7.50 + 7.50 + 19.50
~~\$28.50~~
 34.50

1Kg + 1Kg + 0.5Kg
 12.50 + 12.50 + 7.50
~~\$28.50~~
 32.50

#6.	$\frac{\$4.25}{250g}$	$\frac{\$7.95}{500g}$	$\frac{\$29.50}{2000g}$
	$= 0.017/g$	$= 0.0159/g$	$= 0.01475$
	$= \$17/Kg$	$= 15.90/Kg$	$= 14.75/Kg$

\Rightarrow 3rd Package

\Rightarrow The first store has two packages that are cheaper. So it would be probably cheaper to buy at the first store.

	<u>Small</u>	<u>Medium</u>	<u>Large</u>
#7.	$\frac{\$42.50}{9 \text{ workers}}$	$\frac{\$58.25}{40 \text{ workers}}$	$\frac{\$70.50}{75 \text{ workers}}$
	$\$4.72/\text{worker}$	$\$1.46/\text{worker}$	$\$0.94/\text{worker}$

$$\begin{array}{r} 75 \times 3 = 225 \quad (\$211.50) \\ 40 \times 1 = 40 \quad (\$58.25) \\ \hline 265 = \$269.75 \end{array}$$