

(a) Let  $x$  be the cost of the shoes  
 $x+18$  is the cost of the dress  
 original - .45 (original)

$$x + x + 18 - .45(x + x + 18) = 62$$

$$2x + 18 - .45(2x + 18) = 62$$

$$2x + 18 - .9x - 8.1 = 62$$

$$1.1x + 9.9 = 62$$

$$\underline{- 9.9 \quad - 9.9}$$

$$1.1x = 52.1$$

$$\underline{1.1 \quad 1.1}$$

$$x = 47.36$$

shoes \$47.36

dress \$65.36

(b) Let  $x$  be one item

$$3(x-30)$$

$$x + 3(x-30) - .35(x + 3(x-30)) = 520.54$$

$$x + 3x - 90 - .35(x + 3x - 90) = 520.54$$

$$4x - 90 - .35(4x - 90) = 520.54$$

$$4x - 90 - 1.4x + 31.5 = 520.54$$

$$2.6x - 58.5 = 520.54$$

$$\underline{+ 58.5 \quad + 58.5}$$

$$2.6x = 579.04$$

$$\underline{2.6 \quad 2.6}$$

$$x = 222.71$$

\$222.71 and \$578.12