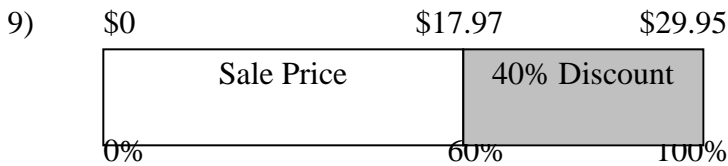




Total price = 106% of original price:  
 Total price = (1.06)(\$6500) = \$6890



A 40% discount means the sale price is  $100\% - 40\% = 60\%$  of the original price.

$$\frac{\text{sale price}}{\text{original price}} = \text{percent}$$

$$\text{sale price} = \text{percent} \cdot \text{original price}$$

$$\text{sale price} = (0.60)(\$29.95)$$

$$\text{sale price} = \$17.97$$

11)

a)       $\frac{1,465,404}{3,665,228} \quad 0.40 = 40\%$

b)       $\frac{4,111,627}{29,760,021} \quad 0.138 = 13.8\%$

c)      Even though California's population change was greater, it still had a smaller percent increase than Arizona because California's population change (of approximately 4 million) was very small compared to its initial, already *huge* 1990 population of approximately 29 million. Arizona, on the other hand, had a much smaller initial 1990 population of approximately 3.5 million persons. Since its population increased by approximately 1.5 million (slightly less than *half* its initial population), it had a greater percent increase than California.

13)

a)      Final Meal Cost = (1.15)(Base Meal)

b)      Final Meal Cost = (1.15)(\$22.15) = \$25.47

15)      If 3% of the mixed solution is oil, then  $100\% - 3\% = 97\%$  of it is gasoline.

a)      Let  $x$  be the number of gallons of oil in the mixture.

$$\frac{\text{part}}{\text{whole}} = \text{percent}$$

$$\frac{\text{amount of oil}}{\text{amount of oil} + \text{amount of gas}} = \text{percent}$$

$$\frac{x}{x + 4 \text{ gal}} = 0.03$$

Now solve the proportion

$$x = (0.03)(x + 4 \text{ gal})$$

$$x = 0.03x + 0.12 \text{ gal}$$

$$0.97x = 0.12 \text{ gal}$$

$$x = \frac{0.12 \text{ gal}}{0.97}$$

$$x \approx 0.124 \text{ gal}$$

There are approximately 0.124 gallons of oil in the mixture.

$$\text{b) } 0.124 \text{ gal} \times \frac{128 \text{ oz}}{\text{gal}} = 15.9 \text{ oz}$$

### Skill and Review

17)  $\frac{16}{64} = \frac{x}{4}$   
 $(16)(4) = 64x$   
 $64x = 64$   
 $x = 1$

19)

Days Rented	Charge (\$)
1	4
2	5
3	6
4	7