MARKUP AND DISCOUNT

COST : C

SELLING PRICE : S

MARKUP : M

MARKUP RATE : r

$$S = C + M$$

$$M = r \cdot C$$

$$\boxed{S = C + r \cdot C}$$

Ex1

$C = \$180$

$S = \$252$

$r = ?$

$$252 = 180 + r \cdot 180$$

$$-180 \quad -180$$

$$\frac{72}{180} = \frac{r \cdot 180}{180}$$

$$0.4 = r$$

$r = 40\%$

$$180 \overline{)\,720}$$

$$0.4$$

$$720$$

$$0$$

Ex2

$r = 0.45$

$S = \$232$

$C = ?$

$$S = C + r \cdot C$$

$$232 = 1C + 0.45 \cdot C$$

$$1.00 + 0.45 = 1.45$$

$$\frac{232}{1.45} = \frac{1.45 \cdot C}{1.45}$$

$$\frac{232}{1.45} = C = \frac{23200}{145}$$

$C = \$160$

$$145 \overline{)\,23200}$$

$$160$$

$$145$$

$$870$$

$$870$$

$$0$$

SALE PRICE : S

REGULAR PRICE: R

DISCOUNT : D

DISCOUNT RATE : r

$$S = R - D$$

$$D = r \cdot R$$

$$\boxed{S = R - r \cdot R}$$

Ex3

$R = \$48$

$S = \$36$

$r = ?$

$$36 = 48 - r \cdot 48$$

$$-48 \quad -48$$

$$\frac{-12}{-48} = \frac{-r \cdot 48}{-48}$$

$$\frac{-12^{1}}{-48_{4}} = r = \frac{1}{4} = 0.25$$

$$= 25\%$$

Ex4

$S = \$27.30$

$r = 35\% = 0.35$

$R = ?$

$$S = R - r \cdot R$$

$$27.30 = 1R - 0.35 \cdot R$$

$$1.00 - 0.35 = 0.65$$

$$\frac{27.30}{0.65} = \frac{0.65 \cdot R}{0.65}$$

$$\frac{2730}{65} = R$$

$$R = \$42$$

$$\begin{array}{r} 42 \\ 65\overline{)2730} \\ 260 \\ \hline 130 \\ 130 \\ \hline 0 \end{array}$$