

# Assignment 5.5

①

Original Principal				\$2,000
Interest for First Quarter	$2,000 \times 8\% \times \frac{1}{4} =$	\$40	= +	\$ 40
Amount at End of First Quarter	$2,000 + 40 =$	b.		a. 2,040
Interest for Second Quarter	$2,040 \times 8\% \times \frac{1}{4} =$	b. 40.80	= +	c. 40.80
Amount at End of Second Quarter	$2,040 + 40.80 =$	e		d. 2,080.80
Interest for Third Quarter	$2,080.80 \times 8\% \times \frac{1}{4} =$	e. 41.616	= +	f. 41.62
Amount at End of Third Quarter	$2,080.80 + 41.62 =$			g. 2,122.42
Interest for Fourth Quarter	$2,122.42 \times 8\% \times \frac{1}{4} =$	h. 42.4484	= +	i. 42.45
Amount at End of Fourth Quarter	$2,122.42 + 42.45 =$			j. 2,164.87

③  $(913.5)(.06)(.25)^{\frac{1}{4}} = 13.7025$

b.  $\boxed{a. \$13.70}$

$913.5 + 13.7 = 927.2$

$\boxed{b. \$927.20}$

⑤  $2,360 + 53.10 = 2,413.10$

$\boxed{a. \$2,413.10}$

$(2,413.10)(.045)(.5)$

$\boxed{b. \$54.29}$

$2,413.10 + 54.29$

$\boxed{c. \$2,467.39}$

$$\textcircled{7} \quad 27,721 \times .09513 \times 1 = 2,637.098$$

$$\boxed{\text{a. } \$2,637.10}$$

$$27,721 + 2,637.10 = 30,358.10$$

$$\boxed{\text{b. } \$30,358.10}$$

$$30,358.10 \times .09513 \times 1 = 2,887.966$$

$$\boxed{\text{c. } \$2,887.97}$$

$$30,358.10 + 2,887.97 = 33,246.07$$

$$\boxed{\text{d. } \$33,246.07}$$

$$\textcircled{9} \quad (1,200)(.06)(.25)^{\frac{1}{4}} = \textcircled{18} \quad \text{1st Interest}$$

$$(1,218)(.06)(.25) = \textcircled{18.27} \quad \text{2nd Interest}$$

$$\text{Amount} = \text{Principal} + \frac{\text{Total Interest}}{\text{Interest}} = 1,200 + 36.27$$

$$\boxed{\text{a. } \$1,236.27}$$

$$\boxed{\text{b. } \$36.27}$$

$$\textcircled{11} \quad (9,855)(.06)(.25) = 147.83$$

$$(10,002.83)(.06)(.25) = 150.04$$

$$\boxed{\text{a. } \$10,152.87}$$

$$\boxed{\text{b. } \$297.87}$$

$$(13) (4,860)(.04)(.25) = 48.60$$

$$(4,908.60)(.04)(.25) = 49.09$$

$$\boxed{a. \$4,957.69} \quad \boxed{b. \$97.69}$$

(15) Note: Every 3 months is a quarter of a year.

$$(3,620)(.065)(.25) = 58.83$$

$$(3,678.83)(.065)(.25) = 59.78$$

$$(3,738.61)(.065)(.25) = 60.75$$

$$\boxed{a. \$3,799.36} \quad \boxed{b. \$179.36}$$

$$(17) (10,000)(.045)(.25) = 112.5$$

$$(10,112.5)(.045)(.25) = 113.77$$

$$(10,226.27)(.045)(.25) = 115.05$$

$$(10,341.32)(.045)(.25) = 116.34$$

$$(10,457.66)(.055)(.25) = 143.80$$

$$(10,601.46)(.055)(.25) = 145.77$$

$$(10,747.23)(.055)(.25) = 147.77$$

$$(10,895)(.055)(.25) = 149.81$$

$$\boxed{a. \$11,044.81} \quad \boxed{b. \$}$$

$$\textcircled{19} \quad 8\frac{1}{2}\% = 8.5\% = \boxed{.085}$$

$$\textcircled{21} \quad (875)(.04)\left(\frac{3}{12}\right) = 8.75$$

$$\boxed{\text{a. } \$8.75} \quad \boxed{\text{b. } \$883.75}$$

$$\textcircled{23} \quad 5\% \div 5 = .05 \div 5 = \boxed{.01}$$

$$\textcircled{25} \quad 3.24\% \div 6 = .0324 \div 6 = \boxed{.0054}$$

$$\textcircled{27} \quad 2.1\% \div 4 = .021 \div 4 = \boxed{.00525}$$

$$\textcircled{29} \quad 17\% \div 9 = .17 \div 9 = \boxed{.019}$$