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rm/	Worksne	el Simi	ple Interest'

SIMPLE INTEREST W/s 2

Name				
HW#	Period			

Find the interest for each in #1 - #3

- 1) p = \$2,500 r = 13% per year t = 4 years
- 2) The amount borrowed for 6 months is \$600 at an annual interest rate of 9%
- 3) \$750 is invested for six years at $10\frac{1}{2}$ % per year.

Find the interest and the amount for each in #4 - #6

- 4) A mortgage of \$325,000 at $7\frac{3}{4}\%$ for 30 years.
- 5) A savings of \$5000 that earns $7\frac{1}{4}\%$.
- 6) A \$4000 loan for 21 months at a rate of 13.5%

Find the missing part for #7 - #9

7) p = \$20,000 r = 14% per year I = \$18,200 t = _____

- 8) The interest on a \$12,000 loan for 18 months is \$2,295. What is the rate?
- 9) How much is in the savings account if the Interest for 4 months at 6.5% is \$19.50?

In problems1-3, compare the amount you have if the money were invested at simple interest or invested so that it is compounded annually.

- 1. \$5,000 at 10% for 5 years
- 2. \$2,000 at 12% for 3 years
- 3. \$1,000 at 14% for 30 years

In problems 4-6, compare the amount of simple interest and the interest if the investment is compounded annually.

- 4. \$1,000 at 8% for 5 years
- 5. \$2,000 at 12% for 3 years
- 6. \$5,000 at 12% for 20 years

Fill in the blanks for problems 7-12.

7							
Compounding	Principal	Yearly rate	Time	Period rate	Number of	Total	Total
Period (n)	(P)	(r)	(t)	(r/n)	periods, (nt)	Amount (A)	Interest (I)
7. Annually	\$1,000	9%	5 years				
8. Semiannually	\$1,000	9%	5 years				
9. Quarterly	\$500	8%	3 years				
10. Monthly	\$350	12%	5 years				,
11. Quarterly	\$800	12%	90 days			3	
12. Quarterly	\$1,250	16%	450 days				

$$I = P \cdot r \cdot t$$

$$A = P(1 + \frac{r}{n})^{n \cdot t}$$