

NAME _____

DATE _____

SIMPLE INTEREST: Worksheet 1

Using $I = prt$, find the following.

- 1) Principal = \$4,000
Interest rate = 6%
Time = 3 years
- 2) Principal = \$1,500
Interest rate = 8%
Time = 18 months
- 3) Principal = \$12,000
Interest rate = 4.5%
Time = 5 years
- 4) John & Suzanne borrowed \$85,000 to purchase their first home. The interest rate for this mortgage was 4%. The loan was set up for 30 years. How much interest will they pay over the 30 year time period?
- 5) Doug borrowed \$4,200 to buy a used car. He plans to pay it back over 36 months with an 8% interest rate. What will Doug's total cost be to purchase the car?

*The **GED Pyramids Shortcut Video #11** will explain how we arrive at the formulas below.*

- 6) $p = \frac{I}{rt}$ Interest = \$120 Interest rate = 12% Time = 2 years Find the principal.
- 7) $r = \frac{I}{pt}$ Principal = \$2,400 Time = 2.5 years Interest = \$390 Find the Interest rate.
- 8) $t = \frac{I}{pr}$ Interest rate = 3% Principal = \$16,000 Interest = \$1,920 Find the time.

KEY
SIMPLE INTEREST: Worksheet 1

Using $I = prt$, find the following.

1) Principal = \$4,000 $I = 4,000 \times .06 \times 3$
 Interest rate = 6% $I = \$720$
 Time = 3 years

2) Principal = \$1,500 $I = 1,500 \times .08 \times 1.5$
 Interest rate = 8% $I = \$180$
 Time = 18 months

3) Principal = \$12,000 $I = 12,000 \times .045 \times 5$
 Interest rate = 4.5% $I = \$2,700$
 Time = 5 years

4) John & Suzanne borrowed \$85,000 to purchase their first home. The interest rate for this mortgage was 4%. The loan was set up for 30 years. How much interest will they pay over the 30 year time period?

$$I = 85,000 \times .04 \times 30$$

$$I = \$102,000$$

5) Doug borrowed \$4,200 to buy a used car. He plans to pay it back over 36 months with an 8% interest rate. What will Doug's total cost be to purchase the car?

$$I = 4,200 \times .08 \times 3 \quad \text{Total} = \$4,200 + \text{Interest}$$

$$I = \$1,008 \quad \text{Total} = \$4,200 + \$1,008$$

$$\text{Total} = \$5,208$$

The **GED Pyramids Shortcut Video #11** will explain how we arrive at the formulas below.

6) $p = \frac{I}{rt}$ Interest = \$120 Interest rate = 12% Time = 2 years Find the principal.

$$p = \frac{120}{.12 \times 2} = \$500$$

7) $r = \frac{I}{pt}$ Principal = \$2,400 Time = 2.5 years Interest = \$390 Find the Interest rate.

$$r = \frac{390}{2,400 \times 2.5} = .065 = 6.5\%$$

8) $t = \frac{I}{pr}$ Interest rate = 3% Principal = \$16,000 Interest = \$1,920 Find the time.

$$t = \frac{1920}{16,000 \times .03} = 4 \text{ yrs}$$