

NAME _____

DATE _____

SIMPLE INTEREST: Worksheet 3

Using $I = prt$, find the following.

- 1) Principal = \$8,800
Interest rate = 9%
Time = 5 years
- 2) Principal = \$1,600
Interest rate = 12%
Time = 6 months
- 3) Principal = \$19,200
Interest rate = 3.5%
Time = 5 years
- 4) Tim & Cindy borrowed \$92,000 to purchase their first home. The interest rate for this mortgage was 4.2%. The loan was set up for 30 years. How much interest will they pay over the 30 year time period?
- 5) Angie borrowed \$9,800 to buy a used car. She plans to pay it back over 60 months with a 5% interest rate. What will Angie'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 = \$1,152 Interest rate = 8% Time = 3 years Find the principal.

7) $r = \frac{I}{pt}$ Principal = \$1,200 Time = 1.5 years Interest = \$153 Find the Interest rate.

8) $t = \frac{I}{pr}$ Interest rate = 6% Principal = \$10,500 Interest = \$2,835 Find the time.

KEY
SIMPLE INTEREST: Worksheet 3

Using $I = prt$, find the following.

1) Principal = \$8,800 $I = 8,800 \times .09 \times 5$
 Interest rate = 9% $I = \$3,960$
 Time = 5 years

2) Principal = \$1,600 $I = 1,600 \times .12 \times .5$
 Interest rate = 12% $I = \$96$
 Time = 6 months

3) Principal = \$19,200 $I = 19,200 \times .035 \times 5$
 Interest rate = 3.5% $I = \$3,360$
 Time = 5 years

- 4) Tim & Cindy borrowed \$92,000 to purchase their first home. The interest rate for this mortgage was 4.2%. The loan was set up for 30 years. How much interest will they pay over the 30 year time period?

$$I = 92,000 \times .042 \times 30$$

$$I = \$115,920$$

- 5) Angie borrowed \$9,800 to buy a used car. She plans to pay it back over 60 months with a 5% interest rate. What will Angie's total cost be to purchase the car?

$$I = 9,800 \times .05 \times 5 \quad \text{Total} = \$9,800 + \text{Interest}$$

$$I = \$2,450 \quad \text{Total} = \$9,800 + \$2,450$$

$$\text{Total} = \$12,250$$

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

6) $p = \frac{I}{rt}$ Interest = \$1,152 Interest rate = 8% Time = 3 years Find the principal.

$$p = \frac{1,152}{.08 \times 3} = \$4,800$$

7) $r = \frac{I}{pt}$ Principal = \$1,200 Time = 1.5 years Interest = \$153 Find the Interest rate.

$$r = \frac{153}{1,200 \times 1.5} = .085 = 8.5\%$$

8) $t = \frac{I}{pr}$ Interest rate = 6% Principal = \$10,500 Interest = \$2,835 Find the time.

$$t = \frac{2,835}{10,500 \times .06} = 4.5 \text{ yrs}$$