

KEY

HW #: 7

Name: _____

1.) Sarah deposits \$9,000 into a bank account that pays him 4.5% simple interest for 5 years.

a.) How much interest will Sarah earn over 5 years?

$$I = PRT$$

$$n = (9000)(.045)(5)$$

$$n = \$2025$$

b.) What is the account balance at the end of 5 years?

$$9000 + 2025$$

$$\boxed{\$11025}$$

2.) Terry deposits \$2,000 into a bank account that earns 3.7% interest per year. What is the total amount in the account after 2 years?

$$I = PRT$$

$$n = (2000)(.037)(2)$$

$$n = \$148$$

$$2000$$

$$+ 148$$

$$\boxed{\$2,148}$$

3.) At Smith family went through the McDonald's drive through to pick up food after the school concert. The price of the meal came to \$60. They had a 15% discount. How much is the discount?

$$\text{disc} = \% \cdot \text{price}$$

$$n = (.15)(60)$$

$$n = 9$$

The discount is \$9

4.) John has the following coupons for Old Navy:

10% off
Total Purchase

\$10 off
Total Purchase of \$40.00 or more

If John's purchase total is \$50. Which coupon should he use? Show work to justify.

$$\text{disc} = \% \cdot \text{price}$$

$$n = (.10)(50)$$

$$n = \$5$$

$$50 - 10$$

$$\boxed{\$40}$$

The 2nd coupon is better

5.) Write a situation that could result in the expression: $1.07(0.80x)$.

20% discount and a 7% tax

6.) A local factory sells sneakers to the Footlocker stores. The Footlocker store uses a 40% markup on the sneakers. If the factory sells sneakers for \$70.00 each, how much does Footlocker charge for the sneakers?

$$\text{markup} = \% \cdot \text{price}$$

$$n = (.40)(70)$$

$$n = \$28$$

$$70$$

$$+ 28$$

$$\boxed{\$98}$$

5. The selling price of a pair of pants is \$60. The price David paid for the pants included a 9% sales tax. Which expression can be used to calculate the tax on the pair of pants?

- A. $60 + 60(0.09)$
- B. $60(0.09)$
- C. $60(1.09)$
- D. $60(0.91)$

$$\text{tax} = \% \cdot \text{price}$$

$$n = (.09)(60)$$