

## Jennifer's Jobs Learning Task

Name \_\_\_\_\_

Key

Class Period \_\_\_\_\_

Jennifer is a college student who works two jobs after school and on weekends trying to make some extra spending money and to help pay for her tuition. At Job A, she gets \$8 an hour, and at job B, she gets \$10 an hour.

1. If Jennifer only works at Job A, write an equation for her total income  $I$  for working  $a$  hours.

$$I = 8a$$

- a. How much will she make if she works 20 hours in the week? Justify your answer.

$$I = 8(20) = \boxed{\$160}$$

- b. If she wants to make \$200 dollars per week, how many hours would she have to work? Justify your answer.

$$\frac{200}{8} = \frac{8a}{8} \quad a = 25 \quad \boxed{25 \text{ hours}}$$

2. If Jennifer only works at Job B, write an equation for her total income  $I$  for working  $b$  hours.

$$I = 10b$$

- a. How much will she make if she works 20 hours in the week? Justify your answer.

$$I = 10(20) = \boxed{\$200}$$

- b. If she wants to make \$300 dollars per week, how many hours would she have to work? Justify your answer.

$$\frac{300}{10} = \frac{10b}{10} \quad b = 30 \quad \boxed{30 \text{ hours}}$$

3. If Jennifer works at both Job A and Job B during the week, write an equation for her total income for working  $a$  hours at Job A and  $b$  hours at Job B.

$$I = 8a + 10b$$

- a. How much will she make if she works 10 hours at each job during the week? Justify your answer.

$$I = 8(10) + 10(10) = 80 + 100 = \boxed{\$180}$$

- b. If Jennifer wants to make \$200 combined for working her two jobs, find 3 possible combinations of  $a$  hours at Job A and  $b$  hours at Job B that will give her exactly \$200. Justify your answer.

$$200 = 8a + 10b$$

Job A	Job B
10 hrs.	12 hrs.
15 hrs.	8 hrs.
20 hrs.	4 hrs.