

Name: Class:

Find a value using two-variable equations - word problems

1. A car factory manufactures **110** new cars each month. Let **m** represent the number of months and **c** represent the total number of cars produced.
Find the value of **c** when **m=3**.
2. There are 52 weeks in a year. Let **y** represent the number of years and **w** represent the number of weeks.
Find the value of **w** when **y=5**.
3. A jar of lollipops has 3 less red lollipops than blue lollipops. Let **b** represent the number of blue lollipops in the jar and **r** represent the total number of lollipops in the same jar.
Find the value of **b** when there are **15** lollipops in the jar.
4. During Halloween, a candy shop made a whopping \$782,594 since they had received a lot of customers that day.
Let **n** represent the candies each customer bought, and **c** represents the total number of customers who bought candies.
Find the value of **n** when **c = 206** assuming that all the customers bought an equal number of candies.
5. A construction company has 25 permanent employees. The company manager always hires temporary employees when there is too much work.
Let **e** represent the number of temporary employees and **t** represent the total number of employees.
Find the value of **t** when **e = 11**.
6. To perform very well in her final exams, Cynthia takes 3 hours of extra lessons each day on some of her subjects.
Let **d** represent the number of days and **h** represent the number of hours.
Find the value of **h** when **d = 21**.

Name: Class:

Find a value using two-variable equations - word problems

1. A car factory manufactures **110** new cars each month. Let **m** represent the number of months and **c** represent the total number of cars produced.
Find the value of **c** when **m=3**.

- ▶ In this relationship, **m=3** and denotes the **input** while **c** denotes the **output**.
- ▶ So you can find **c** by multiplying **110** by **m**

$$\begin{array}{l} c = 110 \cdot m \\ \rightarrow c = 110 \cdot 3 \\ c = 330 \end{array}$$

So, when **m=3**, **c=330**.

2. So, when **y=5**, **w=260**.

3. So, when **r = 15**, **b = 12**.

4. So, when **c = 206**, **n = 3,799**.

5. So, when **e = 11**, **t = 36**.

6. So, when **d = 21**, **h = 63**.