



## Understanding Unit Rate

Name: \_\_\_\_\_

Solve each problem.

- 1) A bag of chocolate mix that weighed  $\frac{1}{2}$  of a kilogram could make enough brownies to feed  $\frac{1}{3}$  of the students at school. How many bags would be needed to feed all of the students?
- 2) A pencil making machine took  $\frac{1}{2}$  of a second to make enough pencils to fill  $\frac{1}{3}$  of a box. At this rate, how long would it take the machine to fill the entire box?
- 3) A bag of grass seeds weighed  $\frac{1}{2}$  of a kilogram. That was enough to cover  $\frac{1}{3}$  of a front lawn with seed. How many bags would it take to completely cover a lawn?
- 4) A chef used  $\frac{1}{2}$  of a bag of potatoes to make  $\frac{1}{3}$  of a gallon of stew. If he wanted to make a full gallon of stew how many bags of potatoes would he need?
- 5) Janet was using a container to fill up a fishbowl. The container held  $\frac{1}{2}$  of a gallon of water and filled  $\frac{1}{3}$  of the fishbowl. At this rate, how many containers will it take to fill the fishbowl?
- 6) A water hose had filled up  $\frac{1}{3}$  of a pool after  $\frac{1}{2}$  of an hour. At this rate, how many hours would it take to fill the pool?
- 7) A container of gasoline that held  $\frac{1}{2}$  of a liter could fill up  $\frac{1}{3}$  of a motorcycle gas tank. How many containers would you need to fill up the gas tank entirely?
- 8) Paige spent  $\frac{1}{2}$  of an hour playing on her phone. That used up  $\frac{1}{3}$  of her battery. How long would she have to play on her phone to use the entire battery?
- 9) An old potato outputs  $\frac{1}{2}$  of a volt of electricity, which is  $\frac{1}{3}$  the amount of power needed for a small lightbulb. How many potatoes would you need to power the lightbulb?
- 10) A dejuicer was able to squeeze a pint of juice from  $\frac{1}{2}$  bag of oranges. This amount of juice filled up  $\frac{1}{3}$  of a jug. At this rate, how many bags will it take to fill the entire jug?

## Answers

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_



Solve each problem.

- 1) A bag of chocolate mix that weighed  $\frac{1}{2}$  of a kilogram could make enough brownies to feed  $\frac{1}{3}$  of the students at school. How many bags would be needed to feed all of the students?
- 2) A pencil making machine took  $\frac{1}{2}$  of a second to make enough pencils to fill  $\frac{1}{3}$  of a box. At this rate, how long would it take the machine to fill the entire box?
- 3) A bag of grass seeds weighed  $\frac{1}{2}$  of a kilogram. That was enough to cover  $\frac{1}{3}$  of a front lawn with seed. How many bags would it take to completely cover a lawn?
- 4) A chef used  $\frac{1}{2}$  of a bag of potatoes to make  $\frac{1}{3}$  of a gallon of stew. If he wanted to make a full gallon of stew how many bags of potatoes would he need?
- 5) Janet was using a container to fill up a fishbowl. The container held  $\frac{1}{2}$  of a gallon of water and filled  $\frac{1}{3}$  of the fishbowl. At this rate, how many containers will it take to fill the fishbowl?
- 6) A water hose had filled up  $\frac{1}{3}$  of a pool after  $\frac{1}{2}$  of an hour. At this rate, how many hours would it take to fill the pool?
- 7) A container of gasoline that held  $\frac{1}{2}$  of a liter could fill up  $\frac{1}{3}$  of a motorcycle gas tank. How many containers would you need to fill up the gas tank entirely?
- 8) Paige spent  $\frac{1}{2}$  of an hour playing on her phone. That used up  $\frac{1}{3}$  of her battery. How long would she have to play on her phone to use the entire battery?
- 9) An old potato outputs  $\frac{1}{2}$  of a volt of electricity, which is  $\frac{1}{3}$  the amount of power needed for a small lightbulb. How many potatoes would you need to power the lightbulb?
- 10) A dejuicer was able to squeeze a pint of juice from  $\frac{1}{2}$  bag of oranges. This amount of juice filled up  $\frac{1}{3}$  of a jug. At this rate, how many bags will it take to fill the entire jug?

**Answers**

1. **3 bags**
2.  **$1\frac{1}{2}$  seconds**
3. **3 bags**
4.  **$1\frac{1}{2}$  bags**
5. **3 containers**
6.  **$1\frac{1}{2}$  hours**
7. **3 containers**
8.  **$1\frac{1}{2}$  hours**
9. **3 potatoes**
10.  **$1\frac{1}{2}$  bags**