Understanding Unit Rate

Name:

Solve each problem.

1) 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?

2) 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?

3) A discount bottle of perfume was $\frac{1}{2}$ of a liter. That was enough to fill $\frac{1}{3}$ of a jug. How many bottles of perfume would you need to fill the entire jug?

4) Amy 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?

5) A snail going full speed was taking $\frac{1}{2}$ of a minute to move $\frac{1}{3}$ of a centimeter. At this rate, how long would it take the snail to travel a centimeter?

6) It takes a baker $\frac{1}{2}$ of an hour to make enough cookies to fill $\frac{1}{3}$ of large box. How long would it take him to fill the whole box?

7) A carpenter used $\frac{1}{2}$ of a box of nails while working on a birdhouse and was able to finish $\frac{1}{3}$ of it. At this rate, how many boxes will he need to finish the entire birdhouse?

8) While exercising Mike walked $\frac{1}{2}$ of a mile in $\frac{1}{3}$ of an hour. At this rate, how far will he have travelled after an hour?

9) A small can of paint was $\frac{1}{2}$ of a liter. That was enough to fill $\frac{1}{3}$ of a paint sprayer. How many cans of paint would it take to completely fill the sprayer?

10) 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?

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

1-10	90	80	70	60	50	40	30	20	10	0

Understanding Unit Rate Name: **Answer Key**

Solve each problem.

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Answers

1. **$1\frac{1}{2}$ seconds**
2. **3 containers**
3. **3 bottles**
4. **$1\frac{1}{2}$ hours**
5. **$1\frac{1}{2}$ minutes**
6. **$1\frac{1}{2}$ hours**
7. **$1\frac{1}{2}$ boxes**
8. **$1\frac{1}{2}$ miles**
9. **3 cans**
10. **3 bags**

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