

# Unit Rates

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

A unit rate is basically a ratio that is part-to-one. For example, let's say that Toby drove 600 miles in 12 hours. Find his unit rate. That means that we want to find out how far he drove in one hour.

Step 1: Write the ratio as a fraction. \_\_\_\_\_

Step 2: Divide the top and bottom by the bottom number. \_\_\_\_\_

Step 3: Now that we have a part-to-one ratio we just need a label. \_\_\_\_\_

Step 4: Interpret what the ratio means. \_\_\_\_\_

**For the questions below, give the unit rates and explain what they mean.**

1. It took 30 minutes for Melinda to run 4 miles.

\_\_\_\_\_

2. Ariel was able to read 15 pages in 12 minutes.

\_\_\_\_\_

3. Gurnaz drove 540 miles in 13.5 hours.

\_\_\_\_\_

4. Hannah completed 40 problems in 32 minutes.

\_\_\_\_\_

**For the next set of questions, use unit rates to state who is faster.**

5. Patty ran 10 miles in 65 minutes. Miguel ran 4 miles in 28 minutes.

\_\_\_\_\_

6. Sarah cleaned 18 dishes in 10 minutes. Sunil cleaned 30 dishes in 18 minutes.

\_\_\_\_\_

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A unit rate is basically a ratio that is part-to-one. For example, let's say that Toby drove 600 miles in 12 hours. Find his unit rate. That means that we want to find out how far he drove in one hour.

Step 1: Write the ratio as a fraction. 600/12

Step 2: Divide the top and bottom by the bottom number. 600 ÷ 12 / 12 ÷ 12 = 50/1

Step 3: Now that we have a part-to-one ratio we just need a label. 50 miles/1 hour

Step 4: Interpret what the ratio means. Toby drove approximately 50 miles per hour.

**For the questions below, give the unit rates and explain what they mean.**

1. It took 30 minutes for Melinda to run 4 miles.

7.5 minutes/ 1 mile; Melinda runs at a rate of 7.5 minutes per mile.

2. Ariel was able to read 15 pages in 12 minutes.

1.25 pages/1 minute; Ariel reads at a rate of 1.25 pages per minute.

3. Gurnaz drove 540 miles in 13.5 hours.

40 miles/ 1 hour; Gurnaz was driving at a rate of approximately 40 miles per hour.

4. Hannah completed 40 problems in 32 minutes.

1.25 problems/1 minute; Hannah can complete about 1.25 problems per minute.

**For the next set of questions, use unit rates to state who is faster.**

5. Patty ran 10 miles in 65 minutes. Miguel ran 4 miles in 28 minutes.

Patty's rate: About 0.15 miles/1 minute Miguel's rate: About 0.14 miles/ 1 minute Patty is running farther per minute. Therefore, Patty is faster.

6. Sarah cleaned 18 dishes in 10 minutes. Sunil cleaned 30 dishes in 18 minutes.

Sarah's rate: 1.8 dishes/1 minute Sunil's rate: 1.67 dishes/ 1 minute. Sarah can clean more per minute. Therefore, Sarah is faster.