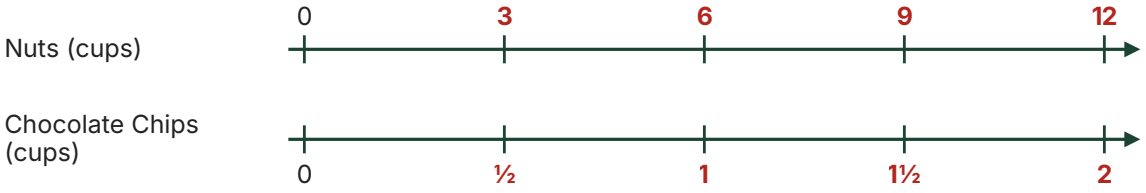
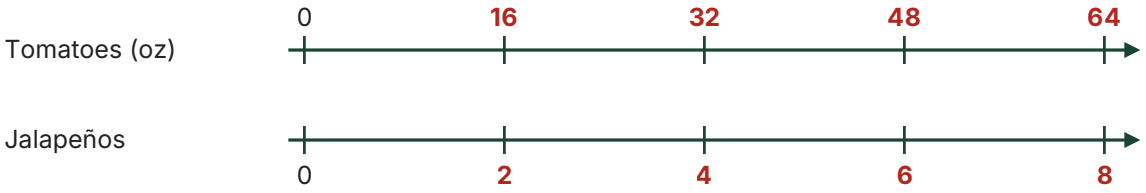
Rates per 1 Unit

ANSWER KEY • Amplify Alignment: Grade 6 Accelerated, Unit 2, Lesson 5

1. One batch of trail mix uses 3 cups of nuts and $\frac{1}{2}$ cup of chocolate chips. Complete the double number line to show the amounts for 1, 2, 3, and 4 batches.

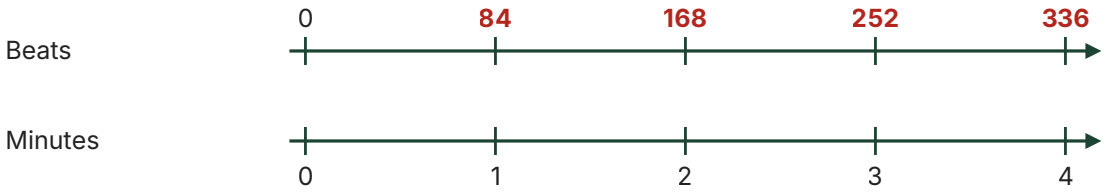


2. One batch of salsa uses 16 ounces of tomatoes and 2 jalapeños. Complete the double number line to show the amounts for 1, 2, 3, and 4 batches.



3. A song is played at a speed of 84 beats per minute.

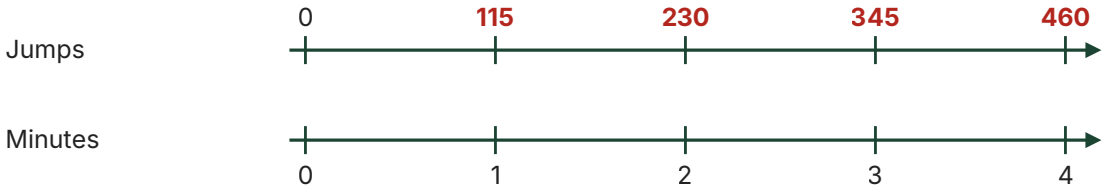
a Complete the double number line to show the number of beats in the first 4 minutes.



b What is the ratio of beats to minutes that corresponds to 1 minute? **84 : 1**

4. Jaylen jumps rope at a steady speed of 115 jumps per minute.

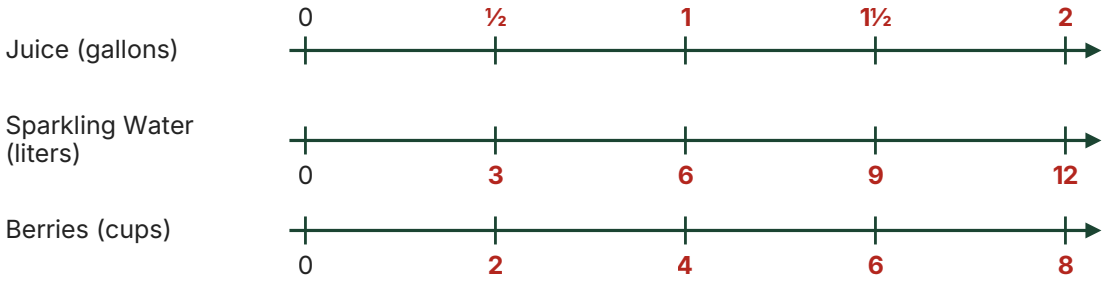
a Complete the double number line to show the number of jumps in the first 4 minutes.



b What is the ratio of jumps to minutes that corresponds to 1 minute? **115 : 1**

5. **A fruit punch recipe says, "Combine $\frac{1}{2}$ gallon of juice, 3 liters of sparkling water, and 2 cups of berries."**

a Complete the triple number line to show the amount of each ingredient in 1, 2, 3, and 4 batches.



b If 9 liters of sparkling water are used with 8 cups of berries, will the punch taste the same? Explain your thinking.

No. 9 liters of sparkling water is 3 batches, and 3 batches use 6 cups of berries, not 8.

6. **Determine the tempo, in beats per minute, for each song. Explain your thinking.**

a A 3-minute song with 342 beats

342 ÷ 3 = 114 beats per minute

b A 4-minute song with 480 beats

480 ÷ 4 = 120 beats per minute

c A 2-minute song with 196 beats

196 ÷ 2 = 98 beats per minute

d A 5-minute song with 640 beats

640 ÷ 5 = 128 beats per minute

7. **A song has 96 beats per minute and is 4 minutes long. Kai says the song has 24 beats in all. Is Kai correct? Explain your thinking.**

No. Kai divided instead of multiplying. The song has 96 × 4 = 384 beats.

8. **One batch of lemonade uses $\frac{3}{4}$ cup of sugar, $\frac{1}{2}$ cup of lemon juice, and $2\frac{1}{2}$ cups of water. How much of each ingredient is needed for 4 batches?**

Sugar: 3 cups Lemon juice: 2 cups Water: 10 cups