



1. To make yellow icing, you mix 6 drops of yellow food coloring with 2 cups of white icing. How much yellow food coloring should you mix with 7 cups of white icing to get the same shade? Draw your own ratio table to support your thinking.



The number of heartbeats per minute while at rest ranges from 60 to 100 beats per minute for the average person. A normal heart rate can vary from person to person, but typically a middle school student has 65 to 85 beats per minute while resting.

Heart rates increase with activity and excitement; the more intense the activity the greater someone's heart rate will be. For example, a walking heart rate will be greater than a resting heart rate, however a running heart rate will be greater than resting or walking.

To check your pulse at your wrist, place two fingers between the bone and the tendon on the thumb side of your wrist.

When you feel your pulse, count the number of beats in 15 seconds.



How to Take Your Pulse



2. Finding your heart rate:

a. How can you calculate your heart rate (beats per minute)?

b. What is your heart rate (number of beats per minute)?



c. If you measure your pulse for five minutes, how many beats would you expect to count? Why?



3. Compare your heart rate with your group. Record the heart rate of everyone in your group

a. What was the greatest heart rate in your group?

b. What was the lowest heart rate in your group?

c. Did anyone have the same heart rate as another person?



4. We are going to measure our heart rate again after physical activity. We are going to walk up and down the hallway twice and then measure our heart rate for 15 seconds.

a. What is your heart rate (number of beats per minute) after walking?



b. How did your heart rate change? Did it stay the same? What about your group members?



5. A horse's heart beats 440 times in 10 minutes. A cow's heart beats 390 times in 6 minutes. Which animal has a greater resting heart rate? Use ratio tables to support your thinking.



6. Comparing Heart Rates using Comparison Language
- How does your heart rate compare to the heart rate of a horse?

- How does your heart rate compare to the heart rate of a cow?



7. Discuss the heart rates of dogs and humans with your group. What comparisons can you make based on the information in the table?

Humans	Small Dog	Medium Dog	Large Dog
60–100 beats per minute	100–140 beats per minute	80–120 beats per minute	60–100 beats per minute





8. Using what you have learned about the heart rates of humans, dogs, cows, and horses. Which of the following heart rate ranges most likely belongs to an elephant? Why?



25 to 45 beats per minute OR 70 to 95 beats per minute

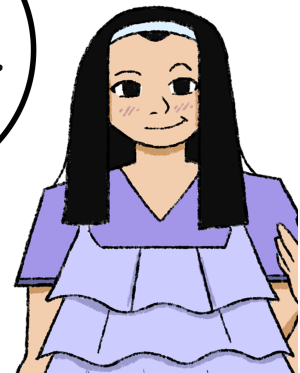
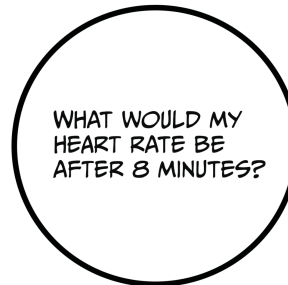


Summary

We can use ratio tables and unit rates to make comparisons.

Exit Ticket

Using the ratio table below, determine how many beats per minute Alexis could expect to count if she measures her resting heart rate for 8 minutes.



Time (minutes)	1	2	3	8
Beats Counted			219	