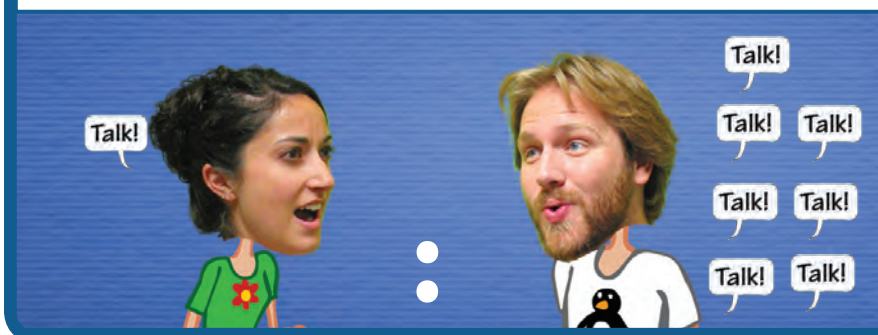


Watch the animation, *Bad Date*, and complete these activities. The animation and an instructor guide are available on iTunes U (search "Math Snacks") and at [mathsnacks.org](http://mathsnacks.org)

A **ratio** is a comparison of two numbers.

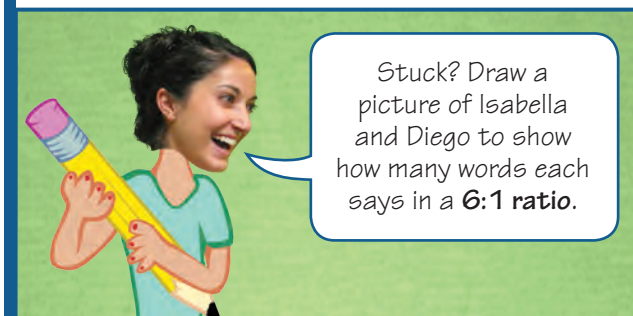
In the *Bad Date* animation, Isabella spoke **one** word for every **seven** words Mike spoke.



The **ratio** of her words to his words is one to seven or **1:7**. We generally separate the two numbers in the ratio with a colon (:).



On her second date, Isabella spoke 36 words, and Diego spoke only 6, for a **6:1 ratio**. In other words, she spoke six times as many words.



Here are examples of **6:1 ratios**.

Isabella's words	Diego's Words
36 words	6 words
18 words	3 words
6 words	1 word

1. Use the ratio **6:1** to find the answers.

A. If Isabella spoke **12 words**, how many words did Diego speak?

12 words	
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B. If Diego spoke **20 words**, how many words did Isabella speak?

	20 words
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C. What if she spoke **60 words**?

60 words	
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D. What if he spoke **32 words**?

	32 words
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## 2. Find the ratio 5:7!

Brother's TV Time	Sister's TV Time
5	7
<b>A.</b> If the brother watched <b>10 hours</b> of TV over the weekend, how much TV did the sister watch?	
<b>B.</b> If the brother watched <b>1 hour</b> of TV, how much TV did the sister watch?	
<b>C.</b> If the sister watched <b>10.5 hours</b> , how much TV did the brother watch?	



There are lots of situations in which **1:1 ratios** are desirable – or even required. For example, in a basketball game, each team has 5 players on the court, so the ratio of players is 5:5 or 1:1. Likewise, in a football game, each team fields 11 players, so the ratio is 1:1.

## 3. Can you think of three other situations in which a 1:1 ratio is desirable?

- A.** \_\_\_\_\_
- B.** \_\_\_\_\_
- C.** \_\_\_\_\_

## 4. Can you think of three situations in which a 1:1 ratio is not desirable or possible?

- A.** \_\_\_\_\_
- B.** \_\_\_\_\_
- C.** \_\_\_\_\_

There are lots of situations in which **1:1 ratios** are not desirable or possible. For example, in a bus, there could be 1 bus driver for 44 students, so the ratio of bus drivers to students would be **1:44**.

At the end of the last date, the ratio of words was **57:56**.

## 5. Why did Harvey say “bread”?

**A.** If Harvey had not said “bread,” would Isabella still consider it a one-to-one ratio? Explain.

**B.** What other ratios would be acceptable for Isabella to consider the date successful? Explain.

57 : 56

Isabella : Harvey

