## Lesson 8: Solve Problems with Multiplication and Division

* Let’s make sense of situations and solve word problems.

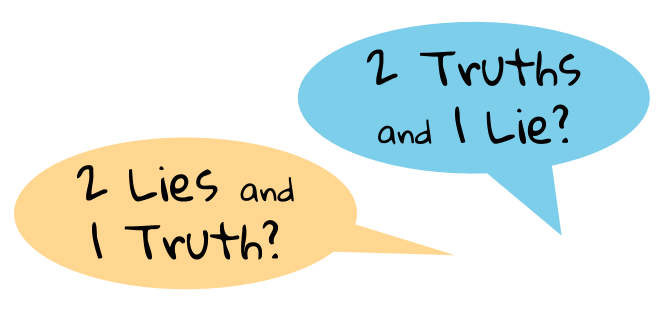
### Warm-up: Number Talk: Divide by 8

Find the value of each expression mentally.

### 8.1: Two Truths and a Lie, or Two Lies and a Truth?

Here are three situations. Which ones are true? Which ones are not true?

Show how you know.



* Situation A: A high-rise building has 53 stories. The first floor is 17 feet tall, but all other stories are each 11 feet tall. The building is 589 feet tall.
* Situation B: A window washer has 600 seconds to wash 17 windows of a building. It takes 54 seconds to wash each window. The washer will finish washing all the windows and have 11 seconds to spare.
* Situation C: Eleven students set a goal to raise at least $600 for charity. Each student raised $17 each day. After 3 days of fundraising, the group will still be short by $54.

### 8.2: Buses for a Field Trip

A school is taking everyone on a field trip. It needs buses to transport 375 people.

Bus Company A has small buses with 27 seats in each.

Bus Company B has large buses with 48 seats in each.



1. What is the smallest number of buses that will be needed if the school goes with:
   * Bus Company A? Show your reasoning.
   * Bus Company B? Show your reasoning.
2. Which bus company should the school choose? Explain your reasoning.
3. Bus Company C has large buses that can take up to 72 passengers.

* Diego says, “If the school chooses Bus Company C, it will need only 6 buses, but the buses will have more empty seats.”
* Do you agree? Explain your reasoning.



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