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.

- $848 \div 8$
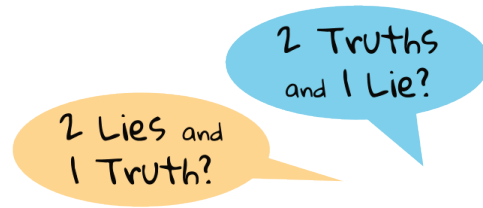
- $4{,}848 \div 8$

- $4{,}852 \div 8$

- $5{,}848 \div 8$

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.

2 Truths and 1 Lie?

2 Lies and 1 Truth?

- 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.

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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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