Interactive Technologies in STEM Teaching and Learning

Open TaskS

# Example Open Tasks

Adapted from: Small, M. (2009). *Good questions: Great ways to differentiate mathematics instruction*. New York: Teachers College Press.

1. Show the number \_\_\_ as many ways as you can.
2. The answer is \_\_\_. What is the question?
3. Ellen ran in a race with some other students. She did not win, but she was not last. Draw a picture that shows how she did in the race. Tell or show on the picture how many people were ahead of her. Tell or show on the picture how many people were behind her. What word describes her position?
4. Create a sentence that uses each of these four words and numbers: 3, "more." 5, "and." Other words and numbers can also be used.
5. How are the numbers 10 and 15 alike? How are they different?
6. A two-digit number has more tens than ones. What could the number be? How do you know your number is correct?
7. Make up an addition question where there is a 2, a 3, and a 4 somewhere in the question or the answer.
8. Choose a number between \_\_\_ and \_\_\_. Show that number in as many ways as you can.
9. Choose a number that could tell how many flowers might fit in a vase. Tell why that number makes sense.
10. Choose a number that could tell the number of families in a small town. Tell why that number makes sense.
11. a) A number is about 10, but it’s not 10. What is the most it might be? What is the least it might be?

b) A number is about 125, but it is not 125. What is the most it might be? What is the least it might be?

1. a) AIan had some markers. When he put them in groups of 3, there were 2 left over. If he had fewer than

15 markers, how many could he have had?

b) Andrea has some markers. When she puts them in groups of 3, there is 1 left over. When she puts them in groups of 4 there are 3 left over. If she has fewer than 20 markers, how many markers could she have?

1. Make up a word problem for one of these equations: 38 + 26 = 64 or 3 x 8 = 24.

Adapted from: Small, M. (2009). *Making math meaningful to Canadian students, K-8*. Toronto: Nelson Education.

1. Describe four ways that 6 and 8 are alike and three ways that they are different.
2. Draw a picture of what a model of the number \_\_\_ with base ten blocks can look like.
3. Peter’s dad put cookies in bags with the same number of cookies in each bag. Peter has bags with 30 cookies total and Peter's brother has bags with 18 cookies total. How many cookies could Peter's dad have put in each bag?
4. Explain steps you can use to add \_\_\_ + \_\_\_ [or: to subtract \_\_\_ – \_\_\_].