

PROBLEM-OF-THE-DAY: ALGEBRA 1

WEEK: November 12 to November 16

DAY: Monday

RISD Objective: Given a word problem that reflects the increase or decrease of something, students will determine the percent of increase or decrease.

PROBLEM #58

At camp Wannabe last year, there were 153 campers. This year, the camp enrolled 170 children. Find the percent of increase (change). If enrollment increases at the same percentage, estimate what the enrollment will be next year. Show your work.

MODEL SOLUTION #58

$$\text{Percent of change} = \frac{\text{change_in_number_of_campers}}{\text{original_number_of_campers}}$$

$$\text{Percent of change} = \frac{170 - 153}{153} = \frac{17}{153} = 0.11 = 11\%$$

If the percent increase is the same next year:

Find 11% of 170 and then add that number to 170.

Increase in number of campers = $(0.11)(170) = 18.7$ or 19 campers.

Total campers for next year = $170 + 19 = 189$ campers.

An 11% in the number of campers means there will be about 189 campers next year.