

**PROBLEM-OF-THE-DAY: ALGEBRA 1**

**WEEK:** November 12 to November 16

**DAY:** Thursday

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

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**PROBLEM #61**

**Last year, about 15,000 people attended the State Championship football game. This year, about 17,500 attended the tournament. What is the percent of increase? At this same rate, about how many can be expected to attend next year? Show and explain work.**

**MODEL SOLUTION #61**

$$\textbf{Percent of change} = \frac{\textit{change\_in\_number\_of\_people}}{\textit{original\_number\_of\_people}}$$

**To find the percent of increase, subtract the two values and divide them by the original value.**

$$\textbf{Percent of change} = \frac{17,500 - 15,000}{15,000} = \frac{2500}{15000} = 0.17 = 17\%$$

**The percent of increase is 17%.**

**If the percent increase is the same next year:**

**Find 17% of 17,500 and then add that number to 17,500.**

**Increase in number of people =  $(0.17)(17,500) = 2,975$  people.**

**Total people expected to attend next year =  $17,500 + 2,975 = 20,475$  people.**

**The total people expected to attend next year is 20,475.**