

Task #1: Bucky the Badger

Restate the Bucky the Badger problem in your own words:

Construct a viable argument for the following:

About how many total push-ups do you think Bucky did during the game?

Write down a number that you know is too high.

Write down a number that you know is too low.

What further information would you need to know in order to determine the exact number of total push-ups Bucky did in the course of the game?

If you're Bucky, would you rather your team score their field goals at the start of the game or the end?

What are some numbers of pushups that Bucky will never do in any game?

Task #2: Reasoning about Multiplication and Division and Place Value

Use the fact that $13 \times 17 = 221$ to find the following:

a. 13×1.7

b. 130×17

c. 13×1700

d. 1.3×1.7

e. $2210 \div 13$

f. $22100 \div 17$

g. $221 \div 1.3$

(Source: Illustrative Mathematics)

As Felicia gets on the freeway to drive to her cousin's house, she notices that she is a little low on gas. There is a gas station at the exit she normally takes, and she wonders if she will have to get gas before then. She normally sets her cruise control at the speed limit of 70mph and the freeway portion of the drive takes about an hour and 15 minutes. Her car gets about 30 miles per gallon on the freeway, and gas costs \$3.50 per gallon. (Source: Illustrative Mathematics)