Grade 8

Kelly can tune up four cars in three hours. If we assume he works at a constant rate, we can describe the situation using a function.

a. Write the rule that describes the function that represents Kelly's constant rate of work.

b. Use the function you wrote in part (a) as the formula for the function to complete the table below. Round your answers to the hundredths place.

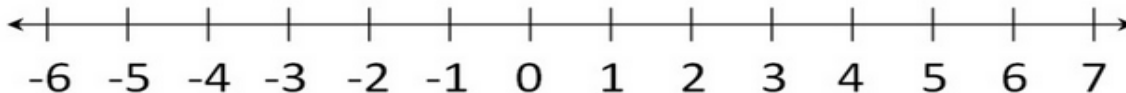| Time it takes to tune up cars (x)	2	3	4	6	7
Number of cars tuned up (y)					

c. Kelly works 8 hours per day. How many cars will he finish tuning up at the end of a shift?

Source: https://www.engageny.org/resource/grade-8-mathematics-module-5
Standard: 8.F.1

Without using your calculator, label approximate locations for the following numbers on the number line.

a. π
b. $-(\frac{1}{2} \times \pi)$
c. $2\sqrt{2}$
d. $\sqrt{17}$

Source: https://www.illustrativemathematics.org/illustrations/337
Standard: 8.NS.1

Sara is going to see the "Nutcracker", but she needs to figure out the cost for tickets. She isn't sure if three or four of her friends are going to join her at the performance. The cost for one ticket is $35.00, and there is a $2.00 one time fee for the ticket purchase.

Can you write a variable expression to explain this situation? Can you figure out the total cost if three people attend the performance? Can you figure out the total cost if four people attend the performance?

Standard: 8.F.3
Source: http://www.ck12.org/book/CK-12-Middle-School-Math-Concepts-Grade-8/section/1.5/