

Equivalent Expressions Pre-Assessment

1. Leo and Silvia are looking at the following problem:

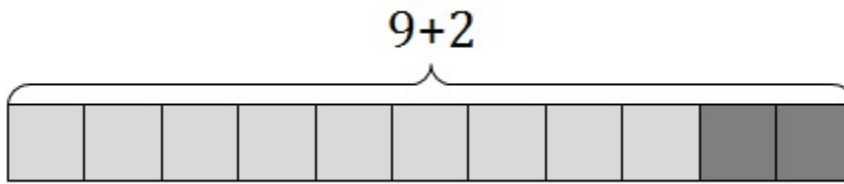
How does the product of 60×225 compare to the product of 30×225 ?

Silvia says she can compare these products without multiplying the numbers out. Explain how she might do this. Draw pictures to illustrate your explanation.

2. Evaluate the following numerical expression:

$$4 - 3(7 - 10) - (-6 + 14)$$

3. Below is a picture that represents $9+2$.



- a. Draw a picture that represents $4 \times (9+2)$.
- b. How many times bigger is the value of $4 \times (9+2)$ than $9+2$? Explain your reasoning.
4. To compute the perimeter of a rectangle you add the length, l and width, w and double this sum.
- a. Write an expression for the perimeter of a rectangle.
- b. Use the expression to find the perimeter of a rectangle with length 30 and width 75.