**Applications of Exponents & Evaluating Expressions**

1. Write and simplify an expression for the AREA of the following rectangle:

5*x*4*y*8

7*x*5*y*10

2. Write and simplify an expression for the AREA of the following rectangle:

3*x*7*y*12

15*x*3*y*8

3. Write and simplify an expression for the VOLUME of the following rectangular prism:

4*x*3*y*5

3*x*4*y*2

6*x*5*y*6

4. Write and simplify an expression for the VOLUME of the following rectangular prism:

6*x*2*y*11

*x*3*y*7

4*x*3*y*8

5. Write and simplify an expression for the WIDTH of the following rectangle if its AREA is 36*x*9*y*14.

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12*x*3*y*12

6. Evaluate  when  and .

7. Evaluate  when  and .

8. Evaluate  when  and .

9. Evaluate  when  and .

10. Evaluate  when  and .

11. Evaluate  when  and .