

3.1 Expressions - Honors

Name _____ Period _____

Evaluate the expression when $x = 4$, $y = 2$, and $z = 5$.

1. $\frac{x}{y} + \frac{y}{x}$

2. $\frac{xyz}{zy}$

3. $(x + y)^2$

4. $(z - y)^3$

5. $[(z - x)^2 + 4]^2$

6. $[x^2 - (z - y)^2] \div 7$

7. Using the expression $4x - 7$, what is the smallest whole number value for x that gives a result that is more than 150?
8. Using the expression $10 + 3x$, what is the smallest whole number value for x that gives a result that is more than 400?

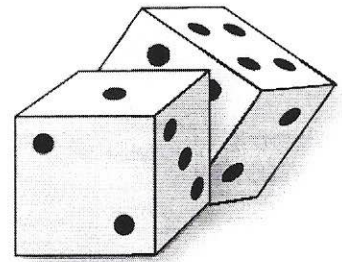
Which value of x makes the expressions equal?

9. $3x$, $x + 4$

10. $5x$, $7x - 6$

You roll two number cubes. The first number cube determines the value of x and the second

number cube determines the value of y in the expression $\frac{60}{x} - y$.



11. What is the largest value of the expression?

12. What is the smallest value of the expression?

13. Use the expression to complete the table.

14. If you rolled the number cubes 100 times, which expression value do you think you would get most often? Explain.

First Number Cube