

Logical Operators Worksheet

If $x = -2$, $y = 5$, $z = 0$, and $t = -4$, what is the value of each of the following logical expressions?

1. $x + y < z + 1$
2. $x - 2 * y + y < z * 2 / 3$
3. $3 * y / 4 < 8 \ \&\& \ y \geq 4$
4. $t > 5 \ || \ z < 2$
5. $x * y < 10 \ || \ y * z < 10$
6. $(y + 2) / 3 > 3 \ \&\& \ t < 0$
7. $x * 3 > 0 \ || \ y + 5 / t < 2$
8. $!(x > 0)$
9. $!(x * t < 10) \ || \ y / x * 4 < y * 2$
10. $t > 5 \ || \ z < (y + 5) \ \&\& \ y < 3$
11. $!(4 + 5 * y \geq z - 4) \ \&\& \ (z - 2 < 7)$

Write syntactically correct logical expressions for the following conditions:

1. m is less than 100
2. n is positive and greater than m
3. m is between 5 and 10 (inclusive)
4. k is less than 1 or greater than 2
5. j and k are both negative
6. i is an even number