

Math 5b, homework 7.



1. Write without parenthesis and simplify if possible:

a. $-(a - b)$;

b. $-(c + d)$;

c. $-(-x + y)$;

d. $-m + (a - c)$;

e. $d - (-k + m)$;

f. $p - (-n + k - l)$;

g. $c - (b + c - a) + (-a + b)$;

2. Multiply.

a. $(a + 1)(a + 3)$;

b. $(3 + y)(y - 4)$;

c. $(c + d)(c - 2d)$;

d. $(3 + x)(3 - x)$;

e. $(y - 2)(3 - y)$;

f. $(x - y)(x + y)$;

3. Solve the equations:

a. $2a - (14 - 3a) = -10$;

b. $2.6y - 0.2(3y - 9) = -0.5 \cdot (2y + 6)$;

c. $\frac{5}{12} \cdot (c - 3) - \frac{1}{6}(2c - 7) = 2$

4. *The inhabitants of the Unknown Planet, divide the day into several hours, an hour into several minutes, and a minute into several seconds. However, on their planet, there are 77 minutes in a day and 91 seconds in an hour. How many seconds are in a day on the Unknown Planet?
5. Draw two (straight) lines and mark five points on these lines so that each line has 3 points.
6. Draw four (straight) lines and mark six points on these lines so that each line has 3 points.
7. Write number 20 and 200 in a 12 based system. (If you need, you can use letters a and b for missing digits)
8. Solve the riddle (each letter represents a unique digit):

$$\begin{array}{r} \text{LOGIC} \\ + \text{LOGIC} \\ \hline \text{PROLOG} \end{array}$$