

Math 070
Equations, Inequalities, and Problem Solving Worksheet

Simply:

1. $2(6x - 1) - (x - 6)$

Write the phrase as an expression and simplify:

2. The sum of three times a number, -1, five times a number, and -12.

Solve for x:

3. $18x - 10 = 19x$

4. $-5(x + 1) + 4(2x - 3) = -4(x - 4) - 10$

5. $-10y + 15 = 55$

6. $.07x + 2.63 = 2.5562$

7. $4(2 + x) + 1 = 6x - 3(x - 2)$

Write as an expression and solve:

8. The sum of four times a number and 14 is equal to the difference of 5 times a number and -17.

Solve:

9. A 21-foot beam is to be divided so that the longer piece is 1 foot more than 3 times the length of the shorter piece. Find the length of each piece.

10. Over the past few years the satellite Voyager II has passed by the planet Saturn, Uranus, and Neptune, continually updating information about these planets, including the number of moons for each. Uranus is now believed to have 7 more moons than Neptune. Also Saturn is believed to have 2 more than twice the number of moons of Neptune. If the total number of moons for these planets is 41, find the number of moons for each planet.

11. The human eye blinks every 5.1 seconds on average. How many times does the average eye blink in one day? In one year?

12. The states of Hawaii and Pennsylvania spend a total of \$60.9 million for tourism. The state of Hawaii spends \$8.2 million less than twice the amount of money that the state of Pennsylvania spends. Find the amount that each state spends on tourism.