

Solve each equation for x . Show all steps for full credit! Each problem is worth 10 points. 200 points total.

1) $2x + 3 = 11$

2) $4x + 8 = 20$

3) $2(1x + 1) = 8$

4) $\frac{x}{2} + 1 = 31$

5) $-2x + 4x + 1x = 39$

6) $2x - 5x = 18$

7) $4x + 5 + 1x = 25$

8) $2x - 4 + 3x = 16$

9) $7 + 3x + 2x = 32$

10) $8x - 7x + 2 = 3$

11) $2(2x + 1) = 14$

12) $4(1x + 7) = 28$

13) $-5(2x + 9) = -65$

14) $-2x + 10 - 4x = 82$

15) $3x - (2x + 4) = 2$

16) $3x + 2 = 1x + 5$

17) $5x + 1 = 1x + 9$

18) $6x + 4 = 3x + 28$

19) $7x + 5 = 3x + 1$

20) In the figure at right, find the height of the flag pole (x). The meter stick is 39 inches. The meter stick shadow is 47 inches. The flagpole shadow is 235 inches. Write the proportion and solve.

