

Name: \_\_\_\_\_

## Solving Multi – Step Equations

Solve the equation. Check your solution.

1)  $5c + 6 = 31$

2)  $-2 = \frac{t}{3} - 11$

3)  $-9z + 4 = -5$

4)  $-8 - 8d = 64$

5)  $12k + 7 = 31$

6)  $13n + 42 = 81$

7)  $80 = 23 - 3v$

8)  $56 = 17p - 29$

9)  $\frac{h}{9} - 19 = -10$

10)  $-2q - 63 = 47$

11)  $\frac{d}{12} + 25 = 29$

12)  $18 - r = 42$

13)  $12 = \frac{a}{36} + 17$

14)  $\frac{w}{4} - 21 = -3$

15)  $-\frac{x}{2} + 4 = 12$

16)  $-5 = -19 - \frac{x}{7}$

17)  $21 = 4x - 9 - x$

18)  $3(x + 1) = 6$

19)  $3x + 2x = 25$

20)  $4 + x + 7 = 10$

21)  $5 + 2(x - 2) = 19$

22)  $16 = 8(x - 1)$

23)  $22 + 2y - 14 = 0$

24)  $2d + 24 + 3d = 84$

25)  $13t - 7 - 10t = 2$

26)  $4(x + 5) = 16$

27)  $3(7 - 2y) = 9$

28)  $-2(z + 11) = 6$

29)  $-5(3n + 5) = 20$

30)  $-30 = 6(f - 5)$

- 31) Solve  $\frac{x+2}{4} = 2$ . Explain how you solved the equation and how you know your solution is correct.
- 32) A family of five people has \$200 to spend on fishing rods and fishing licenses. They spend a total of \$20 on licenses. Assuming they buy 5 identical rods, what is the maximum amount they can spend on each rod?
- 33) You want to organize a group of friends to go to a karaoke studio this Friday night. You must pay \$30 to reserve a private karaoke room plus \$5 for each person in the group. You also want to have snacks for the group at a cost of \$2 per person. How many people can be in the group in order for the total cost to be \$65?