Combining Like Terms and Solving

- Make sure you show all of your work
- Combine your like terms first before solving!

1. $5h + 2 - 2 = 22$

$5h = 22$

$h = \frac{22}{5} = 4\frac{2}{5}$

2. $-8 = z + 3z$

$4z = -8$

$z = -2$

3. $3b + b - 8 = 4$

$4b + -8 = 4$

$4b = 12$

$b = 3$

4. $3a + 12 - 6a = -9$

$-3a + 12 = -9$

$-3a = -21$

$a = 7$

5. $21 = 6 - x - 4x$

$21 = -5x + 6$

$-5x = 15$

$x = -3$

6. $2m + 8 - 4m = 28$

$-2m + 8 = 28$

$-2m = 20$

$m = -10$

7. $-3y + 4 + 5y = -6$

$2y + 4 = -6$

$2y = -10$

$y = -5$

8. $78 = 3c + 12 - c + 4$

$78 = 2c + 16$

$62 = 2c$

$c = 31$

9. $1 + p + 5 + p = 2$

$2p + 6 = 2$

$2p = -4$

$p = -2$

10. $4(m + 3) = -32$

$4m + 12 = -32$ or $m + 3 = -8$

$4m = -44$ $m = -11$

$m = -11$

11. $14 = 2(s + 5)$

$14 = 2s + 10$ or $7 = s + 5$

$2s = 4$ $s = 2$

$s = 2$

12. $40 = 5(d - 2)$

$40 = 5d + -10$ or $8 = d - 2$

$5d = 50$ $d = 10$

$d = 10$