

Homework 1.1

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Simplify each expression.

1) $8 + 5m + 7 + 3m$

$$\begin{aligned} 5m + 3m + 8 + 7 \\ 8m + 15 \end{aligned}$$

3) $r - 4 + 1 - 2r$

$$\begin{aligned} r - 2r - 4 + 1 \\ -r - 3 \end{aligned}$$

5) $8(7 - 7v)$

$$56 - 56v$$

7) $-1 + 6(1 - n)$

$$\begin{aligned} -1 + 6 - 6n \\ 5 - 6n \end{aligned}$$

9) $6(7r - 5) + 5r$

$$\begin{aligned} 42r - 30 + 5r \\ 47r - 30 \end{aligned}$$

11) $4v(v - 1) + 2(-2 + 2v)$

$$\begin{aligned} 4v^2 - 4v - 4 + 4v \\ 4v^2 - 4 \end{aligned}$$

13) $12 - \frac{3}{2}(8p + 22)$

$$12 - \frac{3}{2}(8p) - \frac{3}{2}(22)$$

$$\begin{aligned} 12 - 12p - 33 \\ -12p - 21 \end{aligned}$$

15) $49 + \frac{5}{3}(-18n + 21) + 12n$

$$49 + \frac{5}{3}(-18n) + \frac{5}{3}(21) + 12n$$

$$\begin{aligned} 49 - 30n + 35 + 12n \\ -18n + 84 \end{aligned}$$

2) $-x + x$

$$0$$

4) $-8(-4b + 8)$

$$32b - 64$$

6) $-5(2n + 8)$

$$-10n - 40$$

8) $-8x^2 + 3x(4x + 3)$

$$\begin{aligned} -8x^2 + 12x^2 + 9x \\ 4x^2 + 9x \end{aligned}$$

10) $8(-2 + 6a) + 7a(a + 3)$

$$\begin{aligned} -16 + 48a + 7a^2 + 21a \\ 7a^2 + 69a - 16 \end{aligned}$$

12) $-5(3x - 6) - 2(2x + 2)$

$$\begin{aligned} -15x + 30 - 4x - 4 \\ -19x + 26 \end{aligned}$$

14) $-\frac{2}{3}(9m - 27) + 13m$

$$-\frac{2}{3}(9m) - \frac{2}{3}(-27) + 13m$$

$$\begin{aligned} -6m + 18 + 13m \\ 7m + 18 \end{aligned}$$