

Simplifying Expressions

1. Simplify.

a) $3x + 5x$

b) $-21x + 12x$

c) $-w + 6w - w$

d) $3x + 5y - 2x$

e) $5c + d - 2c - d$

f) $-r + w + 2r - 2w$

g) $5x + 10 + 5y - 3x + 1$

h) $-7m + 2 + 8n + 9n - 8m$

i) $-x + 5y - 8z - y + 3x + 9y + 1$

2. Expand and simplify each of the following.

a) $(4x + 3) + 2(5x + 1)$

b) $4m(m + 5) - 3(m^2 + 2m)$

c) $2x + 3(x + 2)$

d) $6(2x + 1) - 3(x - 5)$

e) $25m^2 - 2m(m - 6)$

f) $(2x - 4) - (3x - 8)$

g) $-4 + 5(2x - 3) + 3x$

h) $3(2x + 5) - 4(x - 3) + 5x + 6(3x + 2)$

3. The perimeter of the triangle below is $3x^2 + 2x - 4$. Determine the expression that will represent the length of the other side.