

Workout

Question 1: Simplify each of the following

- (a) $y + y + y + y$ (b) $w + w + w + w + w$ (c) $a + a + a + a + a + a$ (d) $s + s + s$
(e) $n + n$ (f) $g + g + g + g - g$ (g) $y + y + y + y - y - y$ (h) $p + p - p - p$
(i) $3y + 2y$ (j) $4a + 3a$ (k) $9k + 5k$ (l) $7m + m$
(m) $15c + 20c$ (n) $6w - 3w$ (o) $10y + 3y - 5y$ (p) $20t - 14t$
(q) $7x - 3x - x$ (r) $8k - 8k$ (s) $7y - 2y + y$ (t) $5u - 4u$
(u) $y^2 + y^2$ (v) $a^2 + a^2 + a^2$ (w) $c^2 + c^2 + c^2 + c^2 + c^2$ (x) $7y^2 + 3y^2$
(y) $2w^2 + 4w^2 + 8w^2$ (z) $6y^2 - 2y^2 + 3y^2$

Question 2: Simplify the following expressions

- (a) $4u - 6u$ (b) $8w - 9w$ (c) $4a + 2a - 9a$ (d) $2y - 9y$
(e) $-3g - 2g$ (f) $-4f + 9f$ (g) $-m - 7m$ (h) $5y^2 - 7y^2$
(i) $6a^2 + 2a^2 - 9a^2$ (j) $ab + ab + ab$

Question 3: Simplify the following expressions

- (a) $3a + 2b + 4a + b$ (b) $7y + 5y + 2h + 2h$ (c) $g + 8a + 2a + g$
(d) $7m + 7p + 8m + p + 2p$ (e) $9e + 2 + e + 2$ (f) $4 + 3a + 2a + 8$
(g) $2y + 4 + 3y - 1$ (h) $8 + 3w - w - 3$ (i) $5 - 4s - 2 + 10s$
(j) $3x + 6y + 5x - 2y$ (k) $6m - 2s + 11s + m$ (l) $2a + 3b - 2 + a + 3b + 4$
(m) $3a - 2b + a - 5b$ (n) $2x - 2y - 6x + 5y$ (o) $y - 4m - 3y - 5m$
(p) $7p - 2q - q + 3r + 4r$ (q) $11c + 8d - 6c - 11d$

Question 4: Simplify the following

- (a) $3y^2 + 4ab + 7y^2 + ab$ (b) $9x^2 - 2x - 11x^2 + 5x$ (c) $7ac - 3ab + 9ab - 7ac$

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Question 5: Expand and simplify the following

(a) $2(y + 3) + 3(y + 1)$

(b) $8(x + 2) + 3(x + 3)$

(c) $4(x - 1) + 2(x + 3)$

(d) $5x + 3 + 2(x + 9)$

(e) $3(2y + 1) + 4(2y + 5)$

(f) $5(2x + 3) + 2(3x + 1)$

(g) $7(c + 2) + 3(c - 2)$

(h) $5(2a + 7) + 2(9a - 4)$

(i) $9(t + 3) + 3(2t - 11)$

(j) $2(x - 4) + 5(x - 2)$

(k) $6(y - 1) - 2(y + 3)$

(l) $8(x + 2) - 3(x - 2)$

(m) $5(2y - 3) + 3(y - 2)$

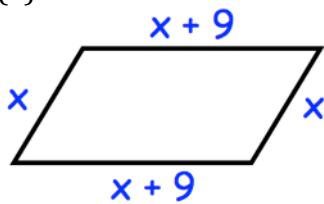
(n) $2(4w - 5) - 2(w - 7)$

(o) $5(3y + 7) - 3(2y - 5)$

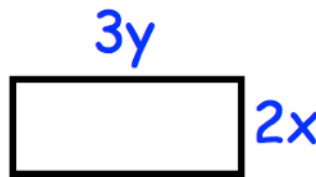
Apply

Question 1: Write down the perimeter of each shape below

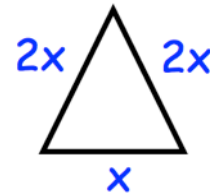
(a)



(b)



(c)



Question 2: A square has a side length of $3x$.
Find an expression for the perimeter of the square.

Question 3: $6x + 7y + x - 8y = 7x - y$
Write down three other expressions that are equal to $7x - y$

Question 4: Find an expression for the perimeter of this shape

