

Expand multiple single brackets and simplify

1 Given that $3(2h + 5) \equiv 6h + 15$, simplify the expressions.

a) $3(2h + 5) + 4 \equiv$ _____ c) $3(2h + 5) + 5h \equiv$ _____

b) $3(2h + 5) - 6 \equiv$ _____ d) $6h + 3(2h + 5) \equiv$ _____

2 a) Expand $3(h + 5)$

b) Expand $4(h + 6)$

c) Use your answers to part a) and part b) to simplify
 $3(h + 5) + 4(h + 6)$

3 a) Expand $4(2p + 3q)$

b) Expand $2(p + q)$

c) Use your answers to part a) and part b) to simplify
 $4(2p + 3q) + 2(p + q)$



4 Expand and simplify to match up equivalent expressions.

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

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

$$2(2x + 1) + 4(2x + 2)$$

$$2(2x + 1) + 2(x + 2)$$

$$3(x - 3) + 3(x + 3)$$

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

5 Expand and simplify the expressions.

a) $3(r + 3) + 2r - 5 \equiv$ _____

b) $4(2m - 3) + 4m + 5 \equiv$ _____

c) $7(3p + 4) + 5(2p - 3) \equiv$ _____

d) $7(n - 3) + 4(2n - 5) \equiv$ _____

e) $6(5p + 4) + 3(2 + 9p) \equiv$ _____

f) $2(3x - 5y) + 3(4y - 2x) \equiv$ _____

6 Nijah expands and simplifies the following.

$$5(p + 3) - 2(p + 4) \equiv 5p + 15 - 2p + 8 = 3p + 23$$

What mistake has Nijah made?

What is the correct answer? _____

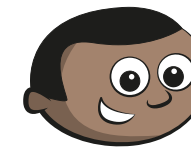
7 Expand and simplify the expressions.

a) $3(2t + 5) - 2(t + 3) \equiv$ _____

b) $3(2t + 5) - 2(t - 3) \equiv$ _____

8

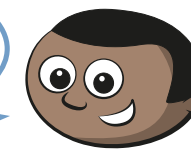
a) Follow Mo's instruction.



Substitute any number into this expression.
 $2(x + 6) + 3(x - 4) - 5(x - 2)$

b)

The answer will always be 10

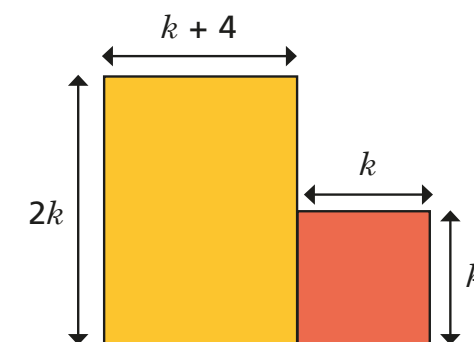


Explain how Mo knows this.

9

Find the areas of the compound shapes.

a)



b)

