Expand multiple single brackets and simplify

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

a) $3(2h + 5) + 4$

b) $3(2h + 5) - 6$

c) $3(2h + 5) + 5h$

d) $6h + 3(2h + 5)$

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) $3(r + 3) + 2r - 5$

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

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

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

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

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

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?

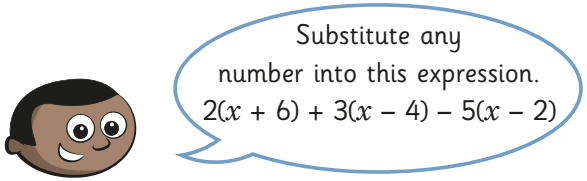
What is the correct answer?

7 Expand and simplify the expressions.

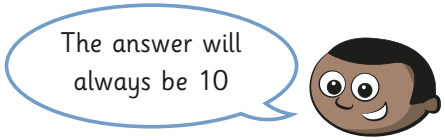
a) $3(2t + 5) - 2(t + 3)$

b) $3(2t + 5) - 2(t - 3)$

8 **a)** Follow Mo's instruction.



b)



Explain how Mo knows this.

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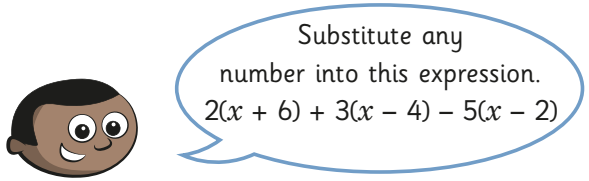
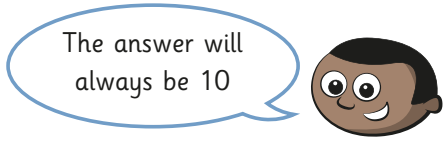


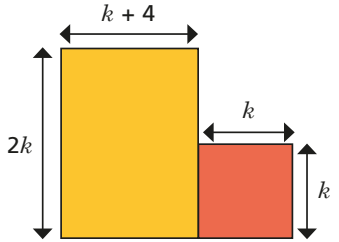
b)



Explain how Mo knows this.

9 Find the areas of the compound shapes.

a)



b)