Expanding and Simplifying

1. Expand:

a) $3(x+4)$ b) $6(x-2)$ c) $5(x+4)$ d) $3(x+9)$

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

2. Expand and Simplify:

a) $2(x+1)+3(x+2)$ b) $4(x+3)+2(x+7)$

c) $5(x+3)+2(x+7)$ d) $8(x+10)+2(x+4)$

e) $2(2x+1)+3(4x+2)$ f) $3(5x+7)+2(6x+1)$

3. Expand and Simplify: *(watch out for the negative signs)*

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

c) $7(x+3)-4(x+2)$ d) $2(5x+10)-2(3x+1)$

e) $4(5x+5)-4(2x+2)$ f) $7(2x+4)-4(3x+6)$

g) $5(3x+9)-2(7x+22)$ h) $8(2x+10)-4(4x+20)$

4. Expand and Simplify: *(slightly harder…)*

a) $5(x+2)-3(x-3)$ b) $4(x+8)-3(x-5)$

c) $6(2x+8)-3(3x-6)$ d) $5(4x+9)-3(3x-8)$

5. Expand and Simplify: *(as tricky as they get)*

a) $4(x-5)-2(x-3)$ b) $4(x-2)-6(x-4)$

c) $4(2x-4)-5(2x-1)$ d) $6(3x-2)-4(5x-9)$

6. A rectangle measures $(x+3)$ m by 5m. Write an expression for the:

a) area of the rectangle b) perimeter of the rectangle

7. Look at the compound shape.

a) Write an expression for the area of the shape.
Expand and simplify your answer

b) If the area of the shape is 36, find the value of x.