

Simplify each.

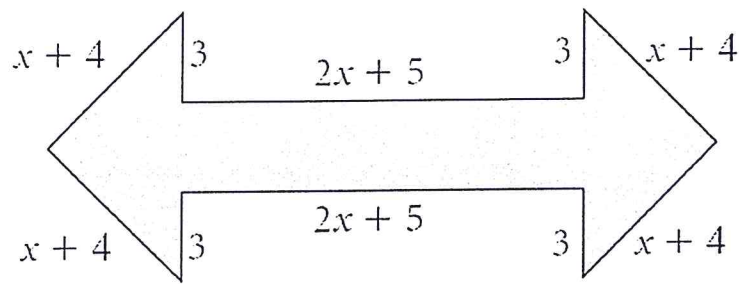
1. $6 + 2(4m - 9) - 12m - 5(3m + 7)$

2. $-\frac{5}{6}(9m^2 - 36m) + 2m^2 - 3m$

3. $-9 + 4m^2(2m - 3) + 6m - 7 - 11m^3 + m^2 + 3m^3$

4. $6g^2h + 7gh^2 - g^2h + 5hg^2 - 8gh + 6g^2h^2 - 4gh^2 + 2gh - 5h^2g$

5. Write an expression for the perimeter of the figure below. Simplify the expression.



Simplify each.

1. $6 + 2(4m - 9) - 12m - 5(3m + 7)$

$$= \underline{6} + \underline{8m} - \underline{18} - \underline{12m} - \underline{15m} - \underline{35}$$

$$= \boxed{-19m - 47}$$

2. $-\frac{5}{6}(9m^2 - 36m) + 2m^2 - 3m$

$$= \underline{-\frac{15}{2}m^2} + \underline{30m} + \underline{2m^2} - \underline{3m}$$

$$= \boxed{-\frac{11}{2}m^2 + 27m}$$

3. $-9 + 4m^2(2m - 3) + 6m - 7 - 11m^3 + m^2 + 3m^3$

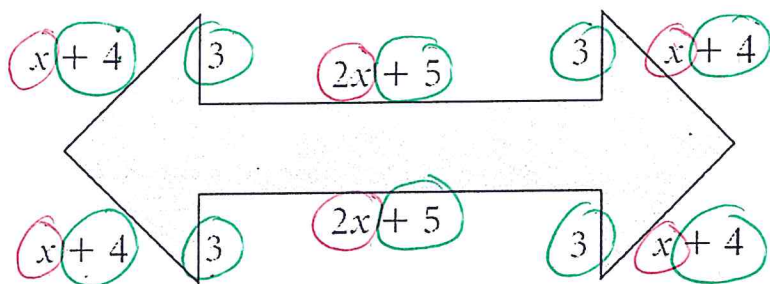
$$\underline{-9} + \underline{8m^3} - \underline{12m^2} + \underline{6m} - \underline{7} - \underline{11m^3} + \underline{m^2} + \underline{3m^3}$$

$$= \boxed{-11m^2 + 6m - 16}$$

4. $\underline{6g^2h} + \underline{7gh^2} - \underline{g^2h} + \underline{5hg^2} - \underline{8gh} + \underline{6g^2h^2} - \underline{4gh^2} + \underline{2gh} - \underline{5h^2g}$

$$= \boxed{10g^2h - 2gh^2 + 6g^2h^2 - 6gh}$$

5. Write an expression for the perimeter of the figure below. Simplify the expression.



$$\text{perimeter} = \boxed{8x + 30}$$

$$P = (x+4) + 3 + (2x+5) + 3 + (x+4) + (x+4) + 3 + (2x+5) + 3$$