

Learning Outcomes Covered:

5E: I can add polynomials.

CONTENT Assessment Questions:

1. Use algebra tiles to model each sum. Sketch your tile model. Record your answer symbolically.

a) $(-4h + 1) + (6h + 3)$

= $2h + 4$

b) $(3y^2 - 2y + 5) + (-y^2 + 6y + 3)$

= $2y^2 + 4y + 8$

2. Add these polynomials. Use algebra tiles if it helps.

a) $(x - 5) + (2x + 2)$
= $3x - 3$

b) $(b^2 + 3b) + (b^2 - 3b)$
= $2b^2$

c) $(y^2 + 6y) + (-7y^2 + 2y)$
= $-6y^2 + 8y$

d) $(5n^2 + 5) + (-1 - 3n^2)$
= $2n^2 + 4$

e) $(y^2 + 6y - 5) + (-7y^2 + 2y - 2)$
= $-6y^2 + 8y - 7$

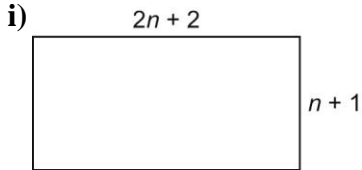
f) $(-3d^2 + 2) + (-2 - 7d^2 + d)$
= $-10d^2 + d$

3. Add these polynomials. Use algebra tiles if it helps.

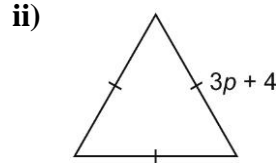
a) $(7x + 3)$
 $+ (-2x - 6)$
 $5x - 3$

b) $(3x^2 - 4x + 1)$
 $+ (-2x^2 + 4x + 1)$
 $x^2 + 2$

4. a) For each shape below, write the perimeter as a sum of polynomials and in simplest form.



$(2n+2) + (2n+2) + (n+1) + (n+1)$
 $= 6n + 6$



$(3p+4) + (3p+4) + (3p+4)$
 $= 9p + 12$

CURRICULAR COMPETENCIES Questions:

1. The sum of two polynomials is $4r + 5 - 3r^2$. One polynomial is $-8 - 2r^2 + 2r$; what is the other polynomial? Explain how you found your answer. (CmRp)

$(4r + 5 - 3r^2) = (-8 - 2r^2 + 2r) + (13 - r^2 + 2r)$

$$\left. \begin{array}{l} -8 + \square = 5 \\ \square = 13 \end{array} \right\} \left. \begin{array}{l} -2r^2 + \square = -3r^2 \\ \square = -r^2 \end{array} \right\} \begin{array}{l} 2r + \square = 4r \\ \square = 2r \end{array}$$

ONGOING LEARNING ACTIVITIES:

CORE: Page 228: Curricular Competencies: 4, 12, 14, 16

Content: 3, 6, 8aceg, 9aceg, 10a, 17

ADVANCED: Page 230: 18, 19