

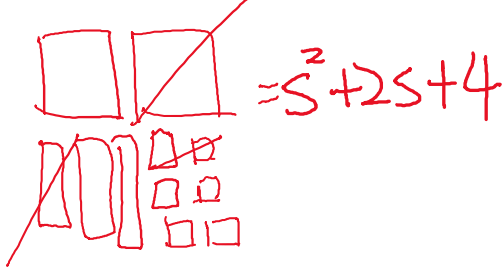
Learning Outcomes Covered:

5F: I can subtract polynomials.

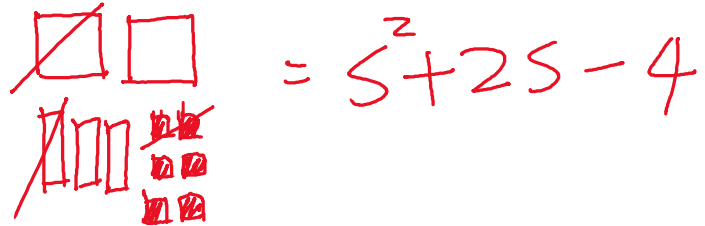
CONTENT Assessment Questions:

1. Use algebra tiles to model and find each difference. Sketch your tile model. Record your answer symbolically.

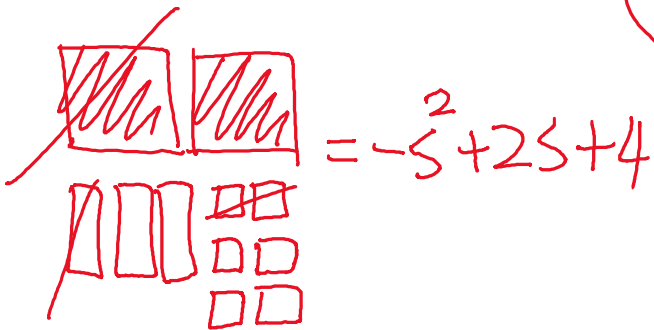
a) $(2s^2 + 3s + 6) - (s^2 + s + 2)$



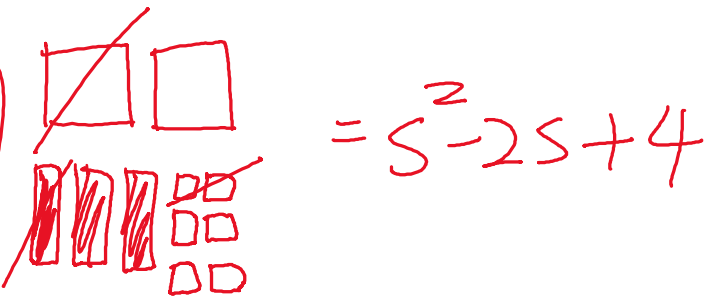
b) $(2s^2 + 3s - 6) - (s^2 + s - 2)$



c) $(-2s^2 + 3s + 6) - (-s^2 + s + 2)$



d) $(2s^2 - 3s + 6) - (s^2 - s + 2)$



2. Subtract.

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

$$= 2x + 3 - 5x - 4$$

$$= -3x - 1$$

b) $(4 - 8w) - (7w + 1)$

$$= 4 - 8w - 7w - 1$$

$$= -15w + 3$$

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

$$= x^2 + 2x - 4 - 4x^2 - 2x + 2$$

$$= -3x^2 - 2$$

d) $(-9z^2 - z - 2) - (3z^2 - z - 3)$

$$= -9z^2 - z - 2 - 3z^2 + z + 3$$

$$= -12z^2 + 1$$

e) $(2a + 3b - 3a^2 + b^2) - (-a^2 + 8b^2 + 3a - b)$

$$= 2a + 3b - 3a^2 + b^2 + a^2 - 8b^2 - 3a + b$$

$$= -2a^2 - a - 11b^2 + 4b$$

f) $(xy - x - 5y + 4y^2) - (6y^2 + 9y - xy)$

$$= xy - x - 5y + 4y^2 - 6y^2 - 9y + xy$$

$$= 2xy - x - 2y^2 - 14y$$

CURRICULAR COMPETENCIES Questions:

1. A student subtracted (CmRp)

$$\begin{aligned}(3y^2 + 5y + 2) - (4y^2 + 3y + 2) &\text{ like this:} \\ &= 3y^2 - 5y - 2 - 4y^2 - 3y - 2 \\ &= 3y^2 - 4y^2 - 5y - 3y - 2 - 2 \\ &= -y^2 - 8y - 4\end{aligned}$$

- a) Explain why the student's solution is incorrect.

This student should not change the signs
in the first set of brackets.

- b) What is the correct answer? Show your work.

$$\begin{aligned}3y^2 + 5y + 2 - 4y^2 - 3y - 2 \\ = -y^2 + 2y\end{aligned}$$

2. The difference between two polynomials is $(5x + 3)$. One of the two polynomials is $(4x + 1 - 3x^2)$. What is the other polynomial? Explain how you found your answer. (US, CmRp)

$$(4x + 1 - 3x^2) - (-3x^2 - x - 2) = 5x + 3.$$

I need to have $3x^2 + x + 2$ added to $4x + 1 - 3x^2$.

∴ $\boxed{-3x^2 - x - 2}$ inside the brackets

ONGOING LEARNING ACTIVITIES:

CORE: Page 234: Curricular Competencies: 10, 12, 16

Content: 6ac, 7ac, 8, 9, 13, 15

ADVANCED: Page 236: 17, 18