

25. $(x + 1)(x^2 - 6x + 2)$

26. $(y + 3)(4y^2 + 5y + 20)$

27. A four-sided polygon has sides that measure $(2x + 1)$, $(4x - 10)$, $(3x^2 - x + 1)$ and $(6x^2 - 50x + 25)$. What is the perimeter of the polygon, in terms of x ?

28. What is the area of a rectangle with length $(6x + 2)$ inches and width $(2x + 10)$ inches? Write your answer as an expression in terms of x .

29. There is an error in the student work below.

$$\begin{aligned} (4x^3 + 4x^2 - 8x) - (8x^2 - 16x + 4) &= \\ &= 4x^3 + 4x^2 - 8x - 8x^2 - 16x - 4 \\ &= 4x^3 + 12x^2 - 24x - 4 \end{aligned}$$

What is the error?

30. There is an error in the student work shown below:

Question: Simplify $(x - 9)(x - 2)$.

Solution:

$$\begin{aligned} (x - 9)(x - 2) \\ x \bullet x + 2 \bullet x - 9 \bullet x + 18 \\ x^2 - 7x + 18 \end{aligned}$$

Challenge: $(x^2 - 6x + 2)(x^2 + 3x + 2)$