
MODULE 1—Operations and Linear Equations & Inequalities

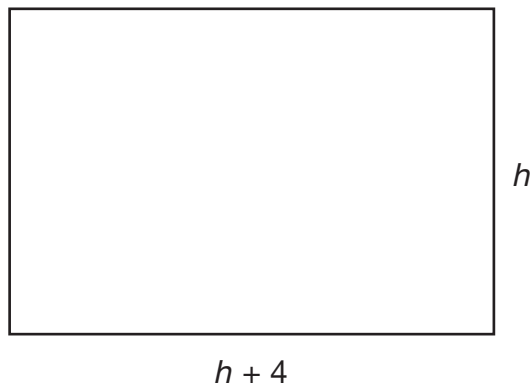
ASSESSMENT ANCHOR

A1.1.1 Operations with Real Numbers and Expressions

Sample Exam Questions

Standard A1.1.1

Keng creates a painting on a rectangular canvas with a width that is four inches longer than the height, as shown in the diagram below.



- A. Write a polynomial expression, in simplified form, that represents the area of the canvas.

Keng adds a 3-inch-wide frame around all sides of his canvas.

- B. Write a polynomial expression, in simplified form, that represents the **total area** of the canvas and the frame.

Continued on next page.

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Continued. Please refer to the previous page for task explanation.

Keng is unhappy with his 3-inch-wide frame, so he decides to put a frame with a different width around his canvas. The total area of the canvas and the new frame is given by the polynomial $h^2 + 8h + 12$, where h represents the height of the canvas.

C. Determine the width of the new frame. Show all your work. Explain why you did each step.