Area in the Real World - Problem Set

I can apply my understanding of shapes to solve real-world problems.

1. Below is a drawing of a wall that is to be covered with either wallpaper or paint. The wall is $8 ft.$ high and $16 ft. $long. The window, mirror, and fireplace will not be painted or papered. The window measures$ 18 in.$ by$ 14 ft.$ The fireplace is $5 ft. $wide and $3 ft.$ high, while the mirror above the fireplace is$ 4 ft.$ by$ 2 ft$.



* 1. How many square feet of wallpaper are needed to cover the wall?
	2. The wallpaper is sold in rolls that are $18 in. $wide and $33 ft.$ long. Rolls of solid color wallpaper will be used, so patterns do not have to match up.
		1. What is the area of one roll of wallpaper?
		2. How many rolls would be needed to cover the wall?

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* 1. This week, the rolls of wallpaper are on sale for$ \$11.99$/roll. Find the cost of covering the wall with wallpaper.
	2. A gallon of special textured paint covers$ 200 ft^{2}$ and is on sale for$ \$22.99$/gallon. The wall needs to be painted twice (the wall needs two coats of paint). Find the cost of using paint to cover the wall.

2. A rectangular flower bed measures $10 m$ by$ 6 m$. It has a path $2 m$ wide around it. Find the area of the path.



3. Tracy wants to cover the missing portion of his deck with soil in order to grow a garden.

* 1. Find the missing portion of the deck. Write the expression and evaluate it.

