## Unit 4 Lesson 13 Cumulative Practice Problems

* 1. Find the unknown side length of the rectangle if its area is 11 m2. Show your reasoning.
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	1. Check your answer by multiplying it by the given side length ($3\frac{2}{3}$). Is the resulting product 11? If not, revise your previous work.
1. A worker is tiling the floor of a rectangular room that is 12 feet by 15 feet. The tiles are square with side lengths $1\frac{1}{3}$ feet. How many tiles are needed to cover the entire floor? Show your reasoning.
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1. A television screen has length $16\frac{1}{2}$ inches, width $w$ inches, and area 462 square inches. Select **all** the equations that represent the relationship of the side lengths and area of the television.
	1. $w⋅462=16\frac{1}{2}$
	2. $16\frac{1}{2}⋅w=462$
	3. $462÷16\frac{1}{2}=w$
	4. $462÷w=16\frac{1}{2}$
	5. $16\frac{1}{2}⋅462=w$
2. The area of a rectangle is $17\frac{1}{2}$ in2 and its shorter side is $3\frac{1}{2}$ in. Draw a diagram that shows this information. What is the length of the longer side?
3. A bookshelf is 42 inches long.
	1. How many books of length $1\frac{1}{2}$ inches will fit on the bookshelf? Explain your reasoning.
	2. A bookcase has 5 of these bookshelves. How many feet of shelf space is there? Explain your reasoning.
* (From Unit 4, Lesson 12.)
1. Find the value of $\frac{5}{32}÷\frac{25}{4}$. Show your reasoning.
* (From Unit 4, Lesson 11.)
1. How many groups of $1\frac{2}{3}$ are in each of these quantities?
	1. $1\frac{5}{6}$
	2. $4\frac{1}{3}$
	3. $\frac{5}{6}$
* (From Unit 4, Lesson 6.)
1. It takes $1\frac{1}{4}$ minutes to fill a 3-gallon bucket of water with a hose. At this rate, how long does it take to fill a 50-gallon tub? If you get stuck, consider using a table.
* (From Unit 2, Lesson 14.)



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