## Unit 6 Lesson 10 Cumulative Practice Problems

1. Here is a rectangle.
* 
	1. Explain why the area of the large rectangle is $2a+3a+4a$.
	2. Explain why the area of the large rectangle is $(2+3+4)a$.
1. Is the area of the shaded rectangle $6(2−m)$ or $6(m−2)$?
* Explain how you know.
* 
1. Choose the expressions that do *not* represent the total area of the rectangle. Select **all** that apply.
* 
	1. $5t+4t$
	2. $t+5+4$
	3. $9t$
	4. $4⋅5⋅t$
	5. $t(5+4)$
1. Evaluate each expression mentally.
	1. $35⋅91−35⋅89$
	2. $22⋅87+22⋅13$
	3. $\frac{9}{11}⋅\frac{7}{10}−\frac{9}{11}⋅\frac{3}{10}$
* (From Unit 6, Lesson 9.)
1. Select **all** the expressions that are equivalent to $4b$.
	1. $b+b+b+b$
	2. $b+4$
	3. $2b+2b$
	4. $b⋅b⋅b⋅b$
	5. $b÷\frac{1}{4}$
* (From Unit 6, Lesson 8.)
1. Solve each equation. Show your reasoning.
* $111=14a$
*
* $13.65=b+4.88$
* $c+\frac{1}{3}=5\frac{1}{8}$
* $\frac{2}{5}d=\frac{17}{4}$
*
* $5.16=4e$
* (From Unit 6, Lesson 4.)
1. Andre ran $5\frac{1}{2}$ laps of a track in 8 minutes at a constant speed. It took Andre $x$ minutes to run each lap. Select **all** the equations that represent this situation.
	1. $\left(5\frac{1}{2}\right)x=8$
	2. $5\frac{1}{2}+x=8$
	3. $5\frac{1}{2}−x=8$
	4. $5\frac{1}{2}÷x=8$
	5. $x=8÷\left(5\frac{1}{2}\right)$
	6. $x=\left(5\frac{1}{2}\right)÷8$
* (From Unit 6, Lesson 2.)



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