### Lesson 12 Practice Problems

1. Cylinder A, B, and C have the same radius but different heights. Put the cylinders in order of their volume from least to greatest.
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1. Two cylinders, $a$ and $b$, each started with different amounts of water. The graph shows how the height of the water changed as the volume of water increased in each cylinder. Match the graphs of $a$ and $b$ to Cylinders P and Q. Explain your reasoning.
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1. Which of the following graphs could represent the volume of water in a cylinder as a function of its height? Explain your reasoning.
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1. Together, the areas of the rectangles sum to 30 square centimeters.
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	1. Write an equation showing the relationship between $x$ and $y$.
	2. Fill in the table with the missing values.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| * + $x$
 | * + 3
 |  | * + 8
 |  | * + 12
 |
| * + $y$
 |  | * + 5
 |  | * + 10
 |  |

* (From Unit 6, Lesson 3.)



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