

## TIMSS 8<sup>th</sup> Grade Math Item #1

There are 10 marbles in a bag: 5 red, and 5 blue.

Sue draws a marble from the bag at random. The marble is red.

She puts the marble back into the bag.

What is the probability that the next marble she draws at random is red?

- A.  $\frac{1}{2}$
- B.  $\frac{4}{10}$
- C.  $\frac{1}{5}$
- D.  $\frac{1}{10}$

Percentage of  
8th-graders  
answering  
correctly:

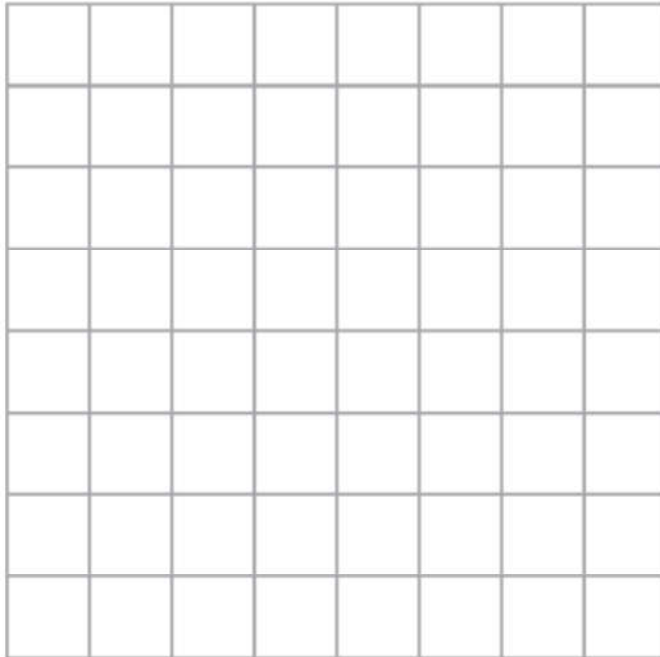
**US: 66%**  
**Int'l Avg: 45%**

**Correct  
Answer: A**

Content Domain	Cognitive Domain
Data and Chance	Reasoning

## TIMSS 8<sup>th</sup> Grade Math Item #2

The length of side of each of the small squares represents 1 cm. Draw an isosceles triangle with a base of 4 cm and a height of 5 cm.

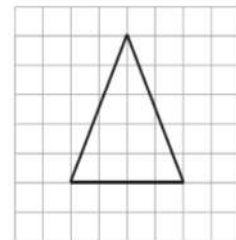


Percentage of  
8th-graders  
answering  
correctly:

**US: 27%**  
**Int'l Avg: 48%**

### Correct Answer:

Correct triangle drawn (any orientation)



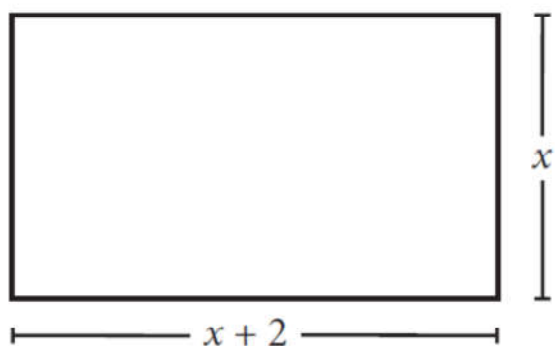
**Content Domain**

Geometry

**Cognitive Domain**

Applying

## TIMSS 8<sup>th</sup> Grade Math Item #3



What is the area of this rectangle?

- A.  $x^2 + 2$
- B.  $x^2 + 2x$
- C.  $2x + 2$
- D.  $4x + 4$

Percentage of 8th-graders answering correctly:

**US: 37%**

**Int'l Avg: 40%**

**Correct Answer: B**

Content Domain	Cognitive Domain
Algebra	Applying