

# Grade 6 Mathematics Sample TE Item C1 TF

## MAT.06.TE.1.000EE.F.177 C1 TF

| Sample Item ID:               | MAT.06.TE.1.000EE.F.177                                       |
|-------------------------------|---|
| Grade:                        | 06  |
| Claim(s):                     | Claim 1: Concepts and Procedures                              |
|                               | Students can explain and apply mathematical concepts and      |
|                               | carry out mathematical procedures with precision and fluency. |
| Assessment Target(s):         | 1 F: Reason about and solve one-variable equations and        |
|                               | inequalities.   |
| Content Domain:               | Expressions and Equations                                     |
| Standard(s):                  | 6.EE.7  |
| Mathematical Practice(s):     | 1, 2, 4, 7  |
| DOK:                          | 1   |
| Item Type:                    | TE  |
| Score Points:                 | 2   |
| Difficulty:                   | M   |
| Key:                          | See Sample Top-Score Response.                                |
| Stimulus/Source:              |   |
| Target-Specific Attributes    |   |
| (e.g., accessibility issues): |   |
| Notes:                        | TE Template: Connections                                      |

Read each of the following problem situations. Label each situation according to the equation that would answer the question. If neither equation works, select "Neither." The labels may be used more than one time.

[To connect two objects, click the first object and then the second object. A line will be automatically drawn between the two objects.]



The school auditorium can seat 325 students. In the auditorium there are 25 rows with the same number of seats in each row. Which equation can be used to find x, the number of seats in each row in the school auditorium?

25 + x = 325

There are 25 soccer balls in a store. The total number of soccer balls and basketballs in the store is 325. Which equation can be used to find x, the number of basketballs in the store?

25x = 325

Marissa had 25 marbles in a bag. She gave some to her brother. Her brother now has 325 marbles. Which equation can be used to find x, the number of marbles that Marissa gave her brother?

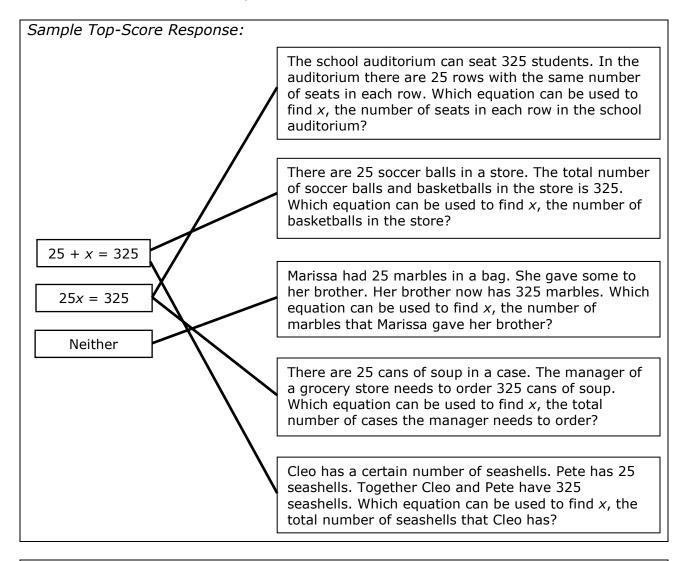
Neither

There are 25 cans of soup in a case. The manager of a grocery store needs to order 325 cans of soup. Which equation can be used to find x, the total number of cases the manager needs to order?

Cleo has a certain number of seashells. Pete has 25 seashells. Together Cleo and Pete have 325 seashells. Which equation can be used to find x, the total number of seashells that Cleo has?



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#### Scoring Rubric:

Responses to this item will receive 0-2 points, based on the following:

**2 points:** The student shows a thorough understanding of identifying equations that match a given real-world scenario and chooses 25x = 325, 25 + x = 325, Neither, 25x = 325, 25 + x = 325

**1 point:** The student shows a limited understanding of identifying equations that match a given real-world scenario and misidentifies one of the equations buy using addition instead of multiplication for the variable, or multiplication instead of addition for the variable, or uses "Neither" in place of where an equation could have been utilized.

**O points:** The student shows little or no understanding of identifying equations that match a given real-world scenario and misidentifies two or more of the equations buy using addition instead of multiplication for the variable, and/or multiplication instead of addition for the variable, and/or uses "Neither" in place of where an equation could have been utilized.



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TE information: **Template: Connections** Item ID: MAT.06.TE.1.000EE.F.177 **Interaction Space Parameters:** Three images in the first region: 25 + x = 32525x = 325Neither Five images in the second region: В. The school auditorium can seat 325 students. In the auditorium there are 25 rows with the same number of 1 seats in each row. Which equation can be used to find x, the number of seats in each row in the school auditorium? There are 25 soccer balls in a store. The total number of soccer balls and basketballs in the store is 325. 2 Which equation can be used to find x, the number of basketballs in the store? Marissa had 25 marbles in a bag. She gave some to her brother. Her brother now has 325 marbles. Which 3 equation can be used to find x, the number of marbles that Marissa gave her brother?

4

There are 25 cans of soup in a case. The manager of a grocery store needs to order 325 cans of soup. Which equation can be used to find x, the total number of cases the manager needs to order?

5

Cleo has a certain number of seashells. Pete has 25 seashells. Together Cleo and Pete have 325 seashells. Which equation can be used to find x, the total number of seashells that Cleo has?

#### **Scoring Data:**

{A-2, A-5, B-1, B-4, C-3} {0 errors=2} {1 error=1}