

21. Jake read in the newspaper that one U.S. dollar was worth \$1.37 in Canadian money. If  $n$  stands for a number of U.S. dollars, which equation gives the value,  $v$ , of those dollars in Canadian money?

A.  $v = n + 1.37$

B.  $v = n - 1.37$

C.  $v = \frac{n}{1.37}$

D.  $v = 1.37n$

*Reporting Category/Substrand for Item 21: **Patterns, Relations, and Functions/Algebra (p. 145)***

22. The area of square A is 4 square units. The sides of square B are twice as long as the sides of square A. What is the area of square B?

A. 8 square units

B. 64 square units

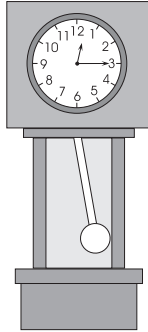
C. 32 square units

D. 16 square units

*Reporting Category/Substrand for Item 22: **Geometry and Measurement/Geometric Measurement (pp. 146-147)***

Session 2, Open-response Question

23. Galileo discovered that there is a relationship between the time it takes for a clock pendulum to swing back and forth and the length of the pendulum.



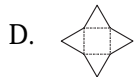
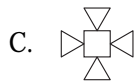
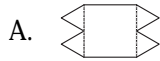
Time of Swing	Length of Pendulum
1 second	1 unit
2 seconds	4 units
3 seconds	9 units
4 seconds	16 units

- According to the pattern shown in the table, what would be the length of the pendulum if the swing took 6 seconds?
- On the grid in your Student Answer Booklet, draw a graph from this data to show the relationship between the time of the swing and the length of the pendulum.
- Describe how the length of the pendulum can be calculated for swings of up to 12 seconds.
- Write an equation that shows the relationship between the pendulum length,  $l$ , and the number of seconds,  $t$ , of the swing.

Reporting Category/Substrand for Item 23: *Patterns, Relations, and Functions/Patterns and Functions (p. 145)*

Session 3, Multiple-choice Questions

24. Which of the following patterns could be folded to form a square pyramid?



Reporting Category/Substrand for Item 24: *Geometry and Measurement/Geometry (p. 146)*