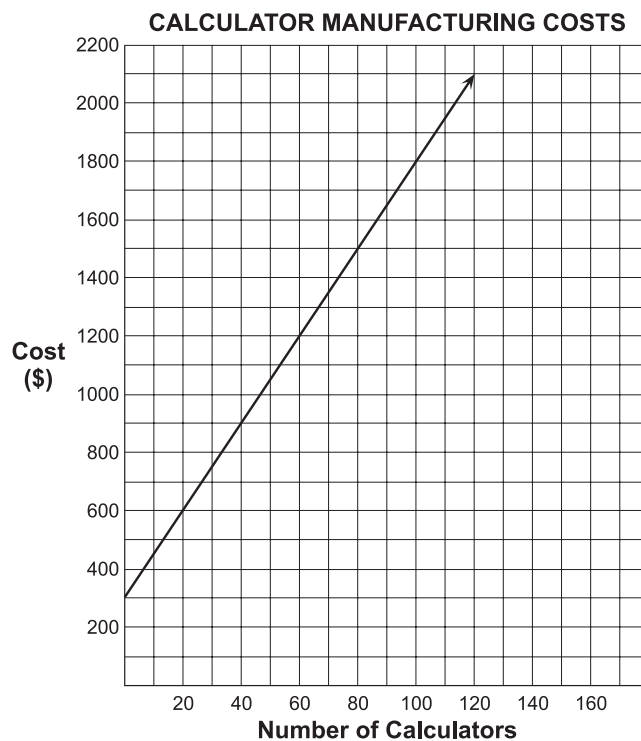


Mathematics, Grade 10

- 5 The graph below models the cost of manufacturing calculators.



Which equation shows the relationship between the number of calculators, n , and the total cost, C ?

- A. $C = 300 + n$
- B. $C = 300 + 0.08n$
- C. $C = 300 + 12.5n$
- D. $C = 300 + 15n$

Reporting Category for Item 5: *Patterns, Relations, and Algebra*

Mathematics, Grade 10

6 Lani had a box that contained

- 1 blue marble;
- 1 green marble;
- 1 purple marble;
- 1 yellow marble; and
- 2 red marbles.

Lani removed one marble without looking, and she recorded the result. She placed the marble back in the box and repeated the procedure one more time. What is the probability that Lani removed a red marble followed by a blue marble?

- A. $\frac{1}{36}$
- B. $\frac{1}{18}$
- C. $\frac{1}{3}$
- D. $\frac{1}{2}$

Reporting Category for Item 6: Data Analysis, Statistics, and Probability

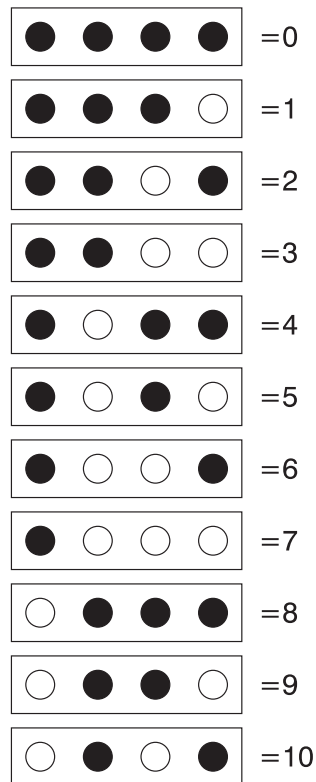
7 What is the value of the expression $3|2 - 4| - 7$?

- A. -13
- B. -1
- C. 1
- D. 13

Reporting Category for Item 7: Number Sense and Operations

Mathematics, Grade 10

- 8 Computers are designed around off/on switches that are used to represent numbers. In the following pattern, which represents the numbers from 0 to 10, ○ represents a switch that is on and ● represents a switch that is off.



Which of the following represents the number 11?

- A.

○	○	○	●
---	---	---	---
- B.

○	○	●	●
---	---	---	---
- C.

○	●	○	○
---	---	---	---
- D.

○	○	○	○
---	---	---	---

Reporting Category for Item 8: *Patterns, Relations, and Algebra*