

29. Chris selected 50 students at random and asked them who they want for class president. The results are shown in the table below.

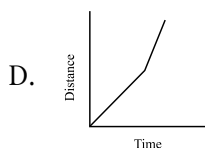
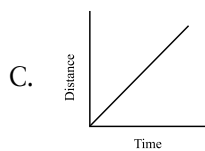
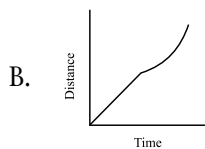
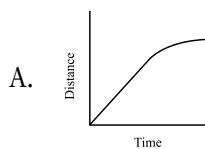
Candidate	Frequency
Jessica	30
Jeremy	4
Monique	16

Which statement is true regarding the probability that at least 5 of the next 10 students interviewed will want Jeremy for president?

- A. It is impossible.
- B. It is unlikely.
- C. It is likely.
- D. It is certain.

Mathematics, Grade 8

30. Kathy rode her bicycle from her house to the top of a nearby hill. First, she traveled very fast on a level road. Then, she traveled more and more slowly as she went up the hill. Which graph best shows the distance she traveled over time?



Reporting Category/Substrand for Item 30: *Patterns, Relations, and Functions/Patterns and Functions (p. 143)*

31. Suppose that for a **positive** number n ,

$$n \div 7 = a \quad \text{and} \quad n \div 8 = b.$$

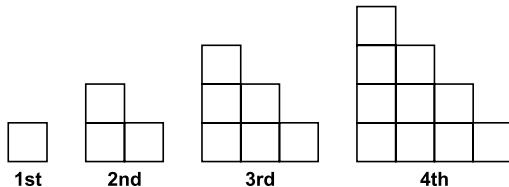
How do a and b compare?

- A. $a < b$
- B. $a = b$
- C. $a > b$
- D. It depends on the value of n .

Reporting Category/Substrand for Item 31: *Number Sense/Number Systems and Number Theory (p. 142)*

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32. Each arrangement in the pattern below is made up of square tiles.



Which expression tells how many tiles are in the n th arrangement of this pattern?

- A. $n(n + 1)$
- B. $n(n - 1)$
- C. $2n - 1$
- D. $\frac{n}{2}(n + 1)$