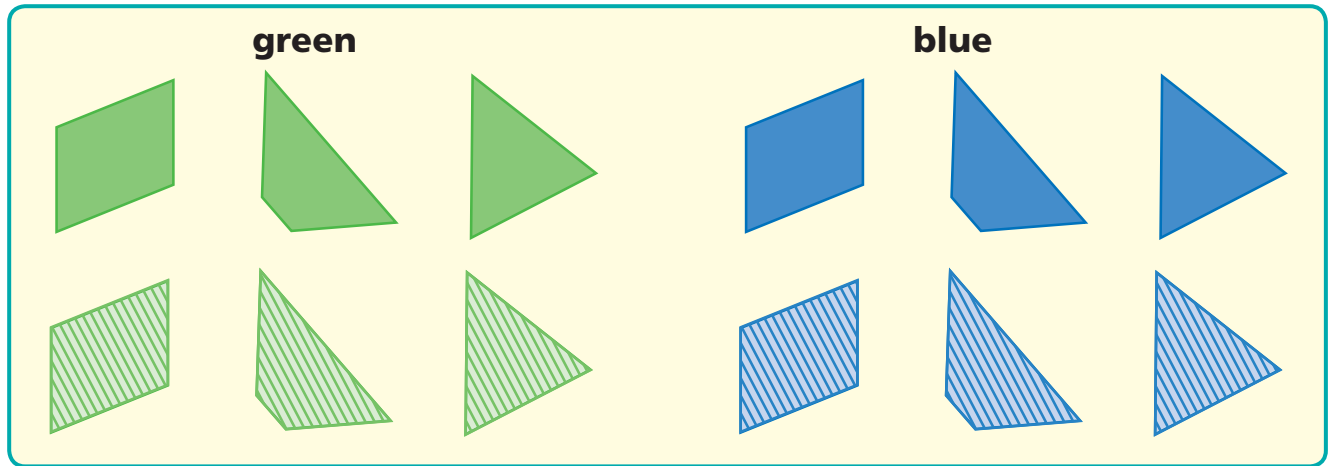


Introducing Probability

NCTM Standards 1, 2, 6, 7, 8, 9, 10



In the answer boxes on the right side of the page, write a fraction to show the probability of getting a card like the named card if you draw one card without looking.

What portion of the cards . . .

- | | | |
|--|----------------|-------|
| 1 . . . have a solid green trapezoid? | ___ out of ___ | _____ |
| . . . do NOT have a solid green trapezoid? | ___ out of ___ | _____ |
| 2 . . . are red? | ___ out of ___ | _____ |
| . . . are NOT red? | ___ out of ___ | _____ |
| 3 . . . have a solid blue figure? | ___ out of ___ | _____ |
| . . . do NOT have a solid blue figure? | ___ out of ___ | _____ |
| 4 . . . have a trapezoid? | ___ out of ___ | _____ |
| . . . are blue? | ___ out of ___ | _____ |
| . . . have a blue trapezoid? | ___ out of ___ | _____ |
| . . . are a trapezoid or blue or both? | ___ out of ___ | _____ |

**For each pair, circle the outcome that is more likely.
Circle both if they are equally likely.**


5 The card has a parallelogram. The card does NOT have a parallelogram.

6 The card has a striped triangle. The card has a parallelogram.


7 The card has a parallelogram. The card has a solid blue figure.

8 The card has a striped trapezoid. The card has a striped triangle.

9 The card has a green figure. The card has a triangle.

 **10** Explain why you chose your answers for Problems 5–9.

11 The card has an orange figure. The card does NOT have a parallelogram.

 **12** Explain why you chose your answer for Problem 11.

13 Challenge Imagine that you choose one card from the deck, look at it, put it back, shuffle, and then repeat 30 times. About how many times do you expect to see a card with a blue figure on it? _____

Is it certain, likely, unlikely, or impossible that you will see at least one card more than once? _____