

Learn About

Determining Probability and Averages: Averages

The **average** is the sum of the numbers in a set divided by the total number of items in that set. For example, the chart shows the lengths of three cats. The combined length of all three cats is 72 centimetres. To find the average length, divide the total number of centimetres by the number of cats:

$$72 \div 3 = 24 \text{ centimetres}$$

Lengths of Cats

Cat	Length
Mika	32 centimetres
Carl	16 centimetres
Bitsy	24 centimetres

There are four children in the Anderson family. Their ages are shown in the chart. What is the average age of the children in the Anderson family?

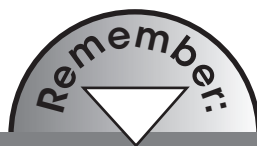
The Anderson Children

Child	Age
Sara	14
Dan	7
Wendy	10
Lauren	9

There are four children, and the sum of their ages is 40.

$$40 \div 4 = 10 \text{ years}$$

The average age of the children in the Anderson family is **ten years**.



The **average** is the sum of the numbers in a set divided by the total number of groups in the set.

*Look at the answer choices for each question.
Read why each answer choice is correct or
not correct.*

1. Chris is least likely to pick which comic book from the box?

(A) The Flame

This is not correct. There are 8 comic books about The Flame in the box and 5 comic books about X-Ray. Chris is less likely to pick a comic book about X-Ray than he is to pick a comic book about The Flame.

● X-Ray

This is correct. There are fewer comic books about X-Ray than any other type of comic book in the box.

(C) The Blue Light

This is not correct. There are 13 comic books about The Blue Light in the box and 5 comic books about X-Ray. Chris is less likely to pick a comic book about X-Ray than he is to pick a comic book about The Blue Light.

(D) Elasto-Man

This is not correct. There are 6 comic books about Elasto-Man in the box and 5 comic books about X-Ray. Chris is less likely to pick a comic book about X-Ray than he is to pick a comic book about Elasto-Man.

2. What is the average number of each comic book that Chris has?

(A) 6 comic books

This is not correct. There are 32 comic books in the box and 4 different comic books.

$$32 \div 4 = 8, \text{ not } 6.$$

(B) 7 comic books

This is not correct. There are 32 comic books in the box and 4 different comic books.

$$32 \div 4 = 8, \text{ not } 7.$$

● 8 comic books

This is correct. There are 32 comic books in the box and 4 different comic books.

$$32 \div 4 = 8$$

(D) 9 comic books

This is not correct. There are 32 comic books in the box and 4 different comic books.

$$32 \div 4 = 8, \text{ not } 9.$$

Lesson

2

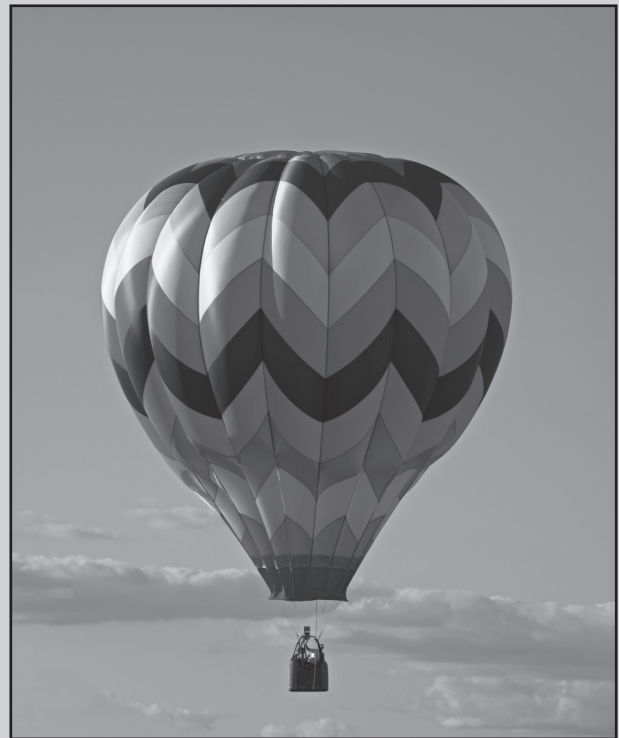
*Read the passage.
Then do Numbers 1–5.*

Hot-Air Balloon Ride

A hot-air balloon pilot gives balloon rides in the summer. The chart shows the number of people who ride in the balloon each month. Rick takes a balloon ride in February. The balloon travels above hills and bush. The pilot explains to Rick how the hot-air balloon works. Rick hopes to be a hot-air balloon pilot when he grows up.

Hot-Air Balloon Rides

Month	Students	Adults
December	12	8
January	10	12
February	15	10
March	11	6



1. What is the total number of students who take a balloon ride in December, January, February and March?

- Ⓐ 11 students
- Ⓑ 12 students
- Ⓒ 36 students
- Ⓓ 48 students

2. How many months are shown in the chart?

- Ⓐ 1 month
- Ⓑ 2 months
- Ⓒ 3 months
- Ⓓ 4 months

Lesson 19

Read the passage.
Then do Numbers 1–5.

Balloon Animals

Ben makes balloon animals. He has a bunch of balloons in a bag. All of the balloons are the same shape and size. Without looking, Ben takes one balloon out of the bag. He blows it up. Then he twists it to start a balloon animal. The chart shows the colours of the balloons in the bag.



Balloons

Colour	Number
red	11
green	4
orange	8
blue	2
purple	13
pink	8

1. Which two colours of balloons is Ben equally likely to choose?

- Ⓐ pink or red
- Ⓑ purple or red
- Ⓒ orange or pink
- Ⓓ blue or green

2. Which colour balloon is Ben most likely to choose?

- Ⓐ red
- Ⓑ pink
- Ⓒ purple
- Ⓓ orange

Self-Assessment 4

Lessons 16–20

Answer these questions after you have completed Lessons 16–20. Before you begin, re-read what you wrote in Self-Assessment 3.

FOCUS on Determining Probability and Averages, Book C

Name _____ Date _____

1. Rate your work in Lessons 16–20. Circle your answer.

successful

somewhat successful

needs improvement

2. Did any of the questions give you trouble? _____

If so, what kind of trouble did you have?

Is this the same kind of trouble you had in Lessons 11–15? _____

3. Did you find the questions easier or more difficult than those in Lessons 11–15?

Why do you think this is so?

4. Did you meet the goal you set for yourself for Lessons 16–20? _____

Why or why not?

Cut along the dotted line.