Name _____

Finding the Average

Essential Question How can you find the average of a set of values?

An average of a set of data can be found by finding the sum of the group of numbers from the data and then dividing by the number of addends.

For example, if Anne scores 21 points, 22 points, and 17 points in 3 different basketball games, she scores an average of 20 points per game. This is because $21 + 22 + 17 = 60$, and $60 ÷ 3$, the total number of points divided by the number of games, is 20.

🔑 UNLOCK the Problem REAL WORLD

Jonathon and Pilar are practicing to be a juggling team. The table shows the number of seconds they were able to keep 4 balls in the air without making a mistake. What was the average number of seconds they were able to juggle?

Trial	Seconds
a	32
b	8
c	62
d	55
e	13

- How many trials did they record?

   _____

🔑 **Find the average of the times.**

STEP 1 Find the sum of the seconds. $32 + 8 + 62 + 55 + 13 = 170$

STEP 2 How many numbers did you add?   5 numbers

STEP 3 Divide the sum by the number of addends. $\frac{34}{5)\overline{170}}$

So, the average time that Jonathon and Pilar kept 4 balls in the air was **34** seconds per trial.

Try This! **Find the average of 61, 99, 106, 3, 44, and 89.**

STEP 1 Find the sum.

$61 + 99 + 106 + 3 + 44 + 89 =$ _____

STEP 2 Divide the sum by the number of addends.

$402 ÷ 6 =$ _____

So, the average of 61, 99, 106, 3, 44, and 89 is _____.

Math Talk Use the jugglers' average time per trial. What might you expect of them in their next trial?

Share and Show `MATH BOARD`

Tommy's basketball scoring record is shown for this month. What was the average number of points that Tommy scored per game?

1a. Find the sum of the points Tommy scored.

_____

Game	1	2	3	4	5	6	7	8
Points	24	11	31	14	9	21	18	8

1b. How many numbers did you add to find the sum in Exercise 1?

_____

1c. Divide the sum by the number of games. What is the average number of points per game?

_____

Find the average of the set of numbers.

2. 6, 9, 14, 4, 12

_____

3. 44, 55, 33, 22, 40, 40

_____

On Your Own

Find the average of the set of numbers.

4. 4, 8, 12, 14, 15, 19

_____

5. 28, 20, 31, 17

_____

6. 100, 140, 60, 120, 180

_____

7. 17, 91, 49, 73, 115, 27

_____

8. 5, 8, 13, 4, 22, 6, 0, 5, 9

_____

9. 637, 492, 88, 743

_____

10. 2,439; 801; 1,508; 0

_____

11. 13, 12, 11, 13, 15, 13, 19, 22, 13, 19

_____

12. 78, 61, 51, 99, 8, 112, 76, 32, 59

_____

13. Find the average temperature.

_____

Day	1	2	3	4	5	6	7
Temperature (ºF)	48	59	38	53	61	61	44

Problem Solving `REAL WORLD`

14. In the temperature table above, suppose the temperature for the next 2 days was 70 degrees. By how much would this change the average temperature over the entire period?

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