

Math Diagnostic Test
2nd Grade

1. Which number sentence can be used to solve the problem?

Brian has 3 model airplanes. Kevin has 5 model airplanes. How many airplanes do they have all together?

- a. $5 - 3 = 2$
- b. $3 + 5 = 8$
- c. $5 - 2 = 3$
- d. $8 + 0 = 8$

2. Which number sentence can be used to solve the problem?

Sara caught 6 butterflies. She let 4 go. How many butterflies does Sara have left?

- a. $6 + 4 = 10$
- b. $6 - 2 = 4$
- c. $4 + 2 = 6$
- d. $6 - 4 = 2$

3. Which fact completes the fact family?

$$8 + 3 = 11 \qquad 3 + 8 = 11 \qquad 11 - 3 = 8$$

- a. $8 - 3 = 5$
- b. $8 + 11 = 19$
- c. $11 - 8 = 3$
- d. $8 - 5 = 3$

4. Which number matches these words?

3 tens and 5 ones

- a. 53
- b. 36
- c. 35
- d. 23

5. Which numbers are written in order from least to greatest?

- a. 5, 9, 7
- b. 7, 9, 5
- c. 9, 7, 5
- d. 5, 7, 9

6. Which number is 10 less than 52?

- a. 42
- b. 51
- c. 53
- d. 62

7. What is the missing number?

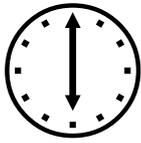
$$7 + \underline{\quad} = 10$$

- a. 2
- b. 3
- c. 4
- d. 5

8. Which shape is a triangle?

- a. ○
- b. □
- c. Δ
- d. ∩

9. Which clock shows 2:00?



a.



b.



c.



d.

10. Count by 2s. What is the missing number?

2, 4, 6, ____, 10, 12

- a. 7
- b. 8
- c. 9
- d. 11

11. Which is the number for twenty?

- a. 12
- b. 20
- c. 22

d. 30

12. Which is the number word for 13?

- a. twelve
- b. thirteen
- c. twenty
- d. thirty

13. How many cents are in a nickel?

- a. one
- b. five
- c. ten
- d. twenty-five

14. How much is a dime worth?

- a. 1¢
- b. 5¢
- c. 10¢
- d. 25¢

15. About how many inches long is this line?

-
- a. One inches
 - b. Two inches
 - c. Three inches
 - d. Five inches

Teacher Instructions

1. This test should be read aloud to account for students with low reading skills. During directions and testing, remind students not to guess. Use talking points like the fact that you'll be teaching this to them during 2nd grade, remind them that they haven't learned some of this information, or that the summer was very long so they might not be back into Math Thinking just yet!
2. Model how to circle the correct answer. The best practice for me is to post a sample question on the board or overhead and circle either the letter of the correct answer or the entire correct answer – whichever will be easiest for you.
3. This test **SHOULD NOT** be administered as is. I would recommend increasing the font to 14 or even 16 and using a sans-serif font (Arial is nice). Remember to make the clocks a big enough font for students to read.
4. This test should be administered on the first day or within the first week.
5. The test should inform your first two/three units of instruction and several year-long goals. If students are comfortable reading and writing numbers, then the first 2nd grade unit should move along in less than three weeks.
6. Students should have an inch ruler to complete number 15. If you choose to use that question, please white out the line that I drew (computers aren't the best measuring devices) and draw in a line that is exactly two inches.

Answer Key

Math Diagnostic Test 2nd Grade

Part 1: Number and Number Relations

1. Which number sentence can be used to solve the problem?

Brian has 3 model airplanes. Kevin has 5 model airplanes. How many airplanes do they have all together?

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- d. 5, 7, 9**

6. Which number is 10 less than 52?

- a. 42**
- b. 51
- c. 53

d. 62

Part 2: Algebra

7. What is the missing number?

$$7 + \underline{\quad} = 10$$

a. 2

b. 3

c. 4

d. 5

Part 3: Geometry

8. Which shape is a triangle?

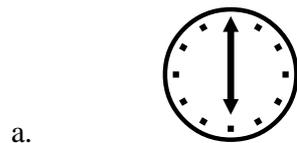
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b. □

c. △

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9. Which clock shows 2:00?



Part 1: Number and Number Relations

10. Count by 2s. What is the missing number?

2, 4, 6, ____, 10, 12

- a. 7
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11. Which is the number for twenty?

- a. 12
- b. 20**
- c. 22
- d. 30

12. Which is the number word for 13?

- a. twelve
- b. thirteen**
- c. twenty
- d. thirty

Part 4: Money

13. How many cents are in a nickel?

- a. one
- b. five**
- c. ten
- d. twenty-five

14. How much is a dime worth?

- a. 1¢
- b. 5¢
- c. 10¢**
- d. 25¢

Part 5: Measurement

15. About how many inches long is this line?

- a. One inches
- b. Two inches**
- c. Three inches
- d. Five inches