

Released Items

Published January 2019

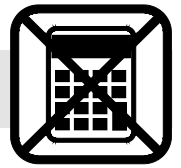
Grade 3 Mathematics North Carolina End-of-Grade Assessment



Public Schools of North Carolina

Department of Public Instruction | State Board of Education

Division of Accountability Services/North Carolina Testing Program



Sample Questions

S1 Which number is the smallest?

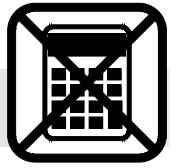
- A 51
- B 62
- C 73
- D 84

S2 What is $3 + 4$?

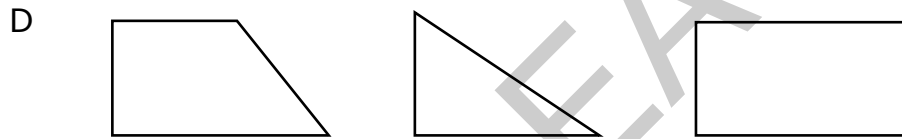
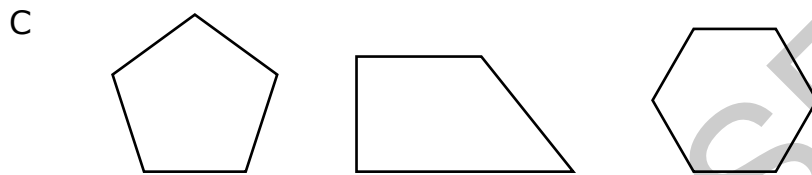
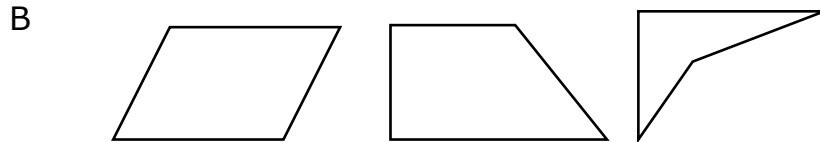
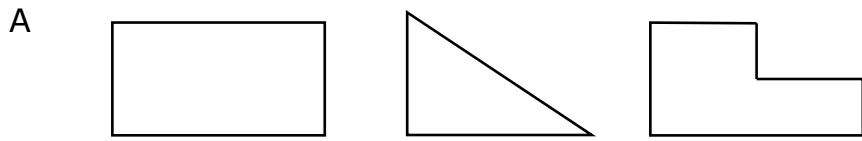
- A 5
- B 6
- C 7
- D 8

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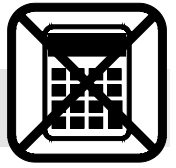




1 Which group of figures contains only quadrilaterals?

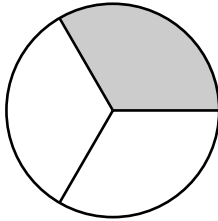


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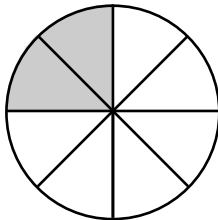


2 Which figure shows a shaded amount that is equivalent to the fraction $\frac{2}{6}$?

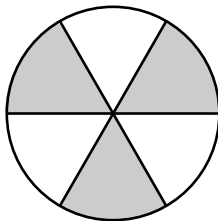
A



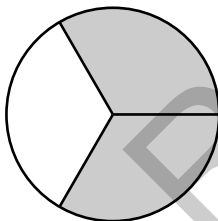
B



C



D



3 Which equation is true when $r = 7$?

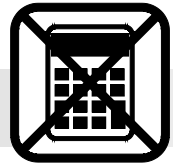
A $6 = 30 \div r$

B $7 = 54 \div r$

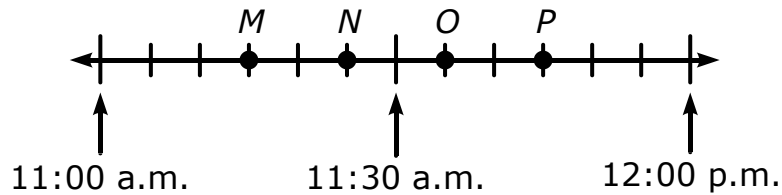
C $7 = 49 \div r$

D $9 = 72 \div r$





- 4 Vanessa spent 15 minutes in the library. She left the library at 11:30 a.m.



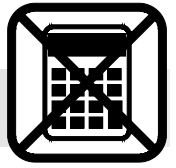
What letter on the number line represents the time Vanessa arrived at the library?

- A *M*
 - B *N*
 - C *O*
 - D *P*
- 5 Jacquelyn's mom drove 265 miles on Thursday and 478 miles on Friday. She has 143 miles more to drive on Saturday. **About** how many miles will she drive in all?

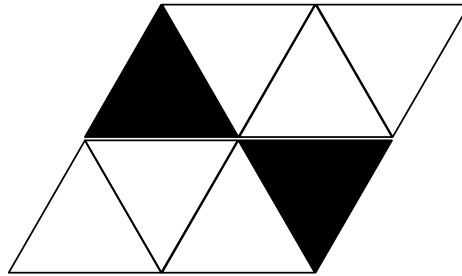
- A 700
- B 800
- C 900
- D 1,000

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6 What fraction of this figure is shaded?

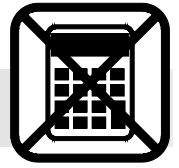


- A $\frac{1}{4}$
- B $\frac{1}{5}$
- C $\frac{3}{4}$
- D $\frac{2}{5}$

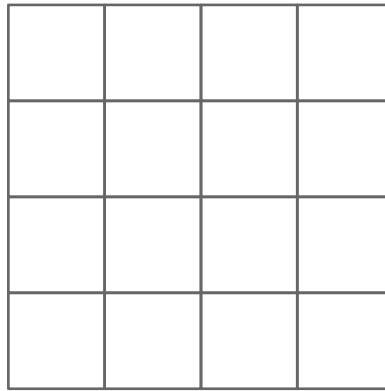
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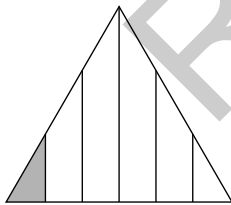
- 7 This figure is 4 units long and 4 units wide.



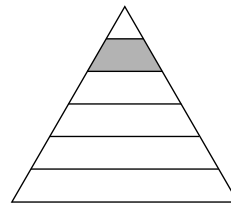
Which measurements describe a rectangle that has the same area as the figure?

- A 5 units long and 3 units wide
 - B 8 units long and 2 units wide
 - C 10 units long and 6 units wide
 - D 12 units long and 4 units wide
- 8 Each of the triangles below has three sides of equal length. In which choice does the triangle have $\frac{1}{6}$ of its area shaded?

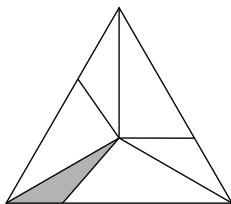
A



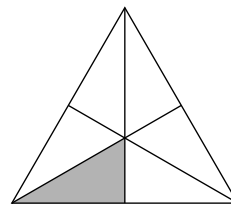
B

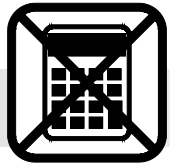


C



D

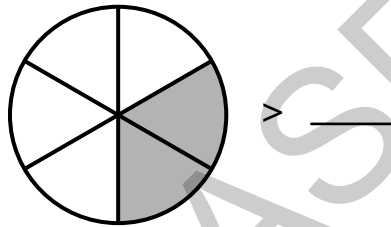




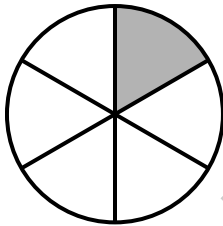
9 There are 500 seats in a movie theater. There are 362 people sitting in the seats. How many seats are empty?

- A 262 seats
- B 152 seats
- C 148 seats
- D 138 seats

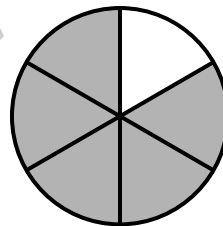
10 Which figure could be added to the diagram to make it true?



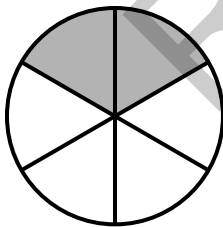
A



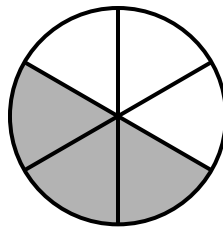
B

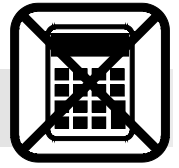


C



D





- 11 Sam's goal is to walk 36 miles.
- He walks 4 miles each day.
 - He has walked for 6 days.

Which equation can be used to find how many more miles, n , Sam still needs to walk to reach his goal?

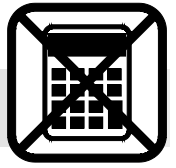
- A $3 \times 5 + n = 36$
- B $4 \times 6 + n = 36$
- C $4 \times 6 \times n = 36$
- D $9 \times 4 + n = 36$
- 12 Amy shaded some parts of this poster.



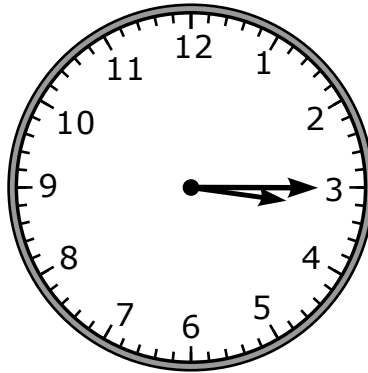
What fraction of the area of the poster is shaded?

- A $\frac{2}{3}$
- B $\frac{3}{8}$
- C $\frac{5}{3}$
- D $\frac{5}{8}$





- 13 Eric leaves school at the time shown.

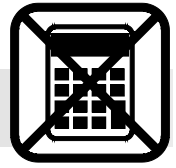


He arrives home 25 minutes later. At what time does Eric get home?

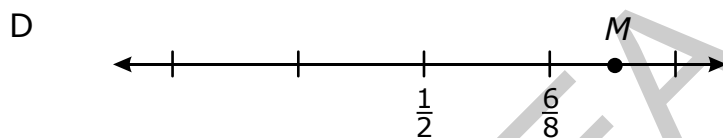
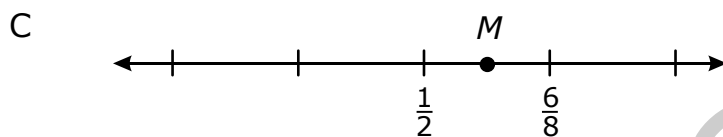
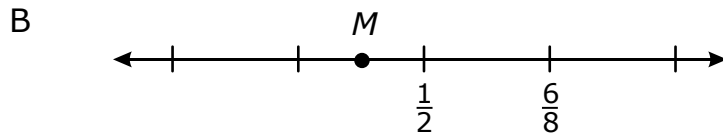
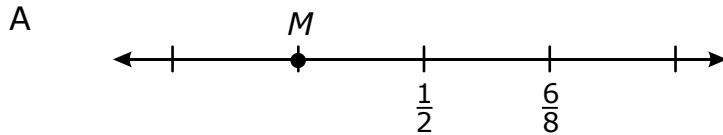
- A 2:50
- B 3:15
- C 3:40
- D 4:05

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14 Which number line shows point M at $\frac{3}{8}$?



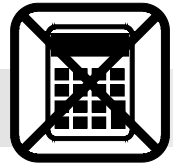
15 Chantelle has 56 stickers. She will give all of the stickers to 8 friends. Each friend will receive the same number of stickers. Which equation will help Chantelle decide how many stickers, n , to give to each friend?

A $n \div 8 = 56$

B $8 \times n = 56$

C $56 - n = 48$

D $56 - 8 = n$



16 A farmer planted 5 different types of tomatoes. He planted 40 of each type. How many tomatoes did the farmer plant?

- A 20
- B 45
- C 200
- D 250

17 Daniel's goal is to walk 100 miles.

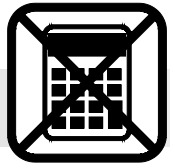
- He walks 5 miles every day.
- He has walked for 7 days.
- Daniel still needs to walk k more miles for his goal.

Which equation could be used to find how many more miles, k , Daniel will have to walk to meet his goal?

- A $100 = 5 \times 7 + k$
- B $100 = 5 \times 7 \times k$
- C $100 = 5 \times 7 - k$
- D $100 = 5 + 7 + k$

18 There were 823 people attending a baseball game after 37 people left. How many people were at the game before the people left?

- A 786
- B 850
- C 860
- D 896

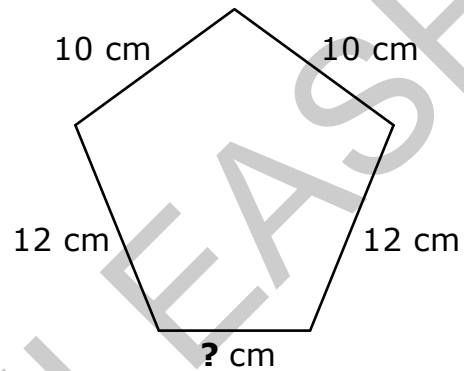


- 19 What value for M makes this equation true?

$$M \div 7 = 7$$

- A 1
- B 14
- C 42
- D 49

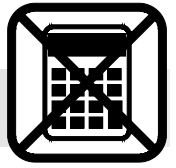
- 20 The perimeter of this pentagon is 52 cm.



What is the missing length?

- A 6 cm
- B 8 cm
- C 9 cm
- D 10 cm





This is the end of the calculator inactive test questions.

Directions:

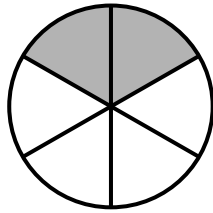
- 1. Look back over your answers for the calculator inactive questions. You will not be able to go back and work on these questions once you are given a calculator.**
- 2. Raise your hand to let your teacher know you are ready to begin the calculator active test questions.**
- 3. Do not begin work on the calculator active test questions until your teacher has given you a calculator.**

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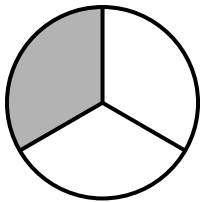


21 A fraction of this circle is shaded.

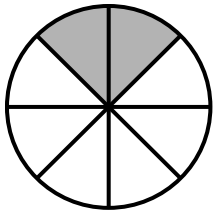


Which circle has an equal fraction shaded?

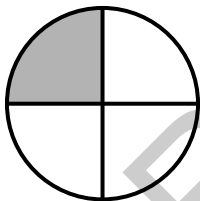
A



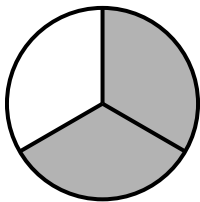
B



C



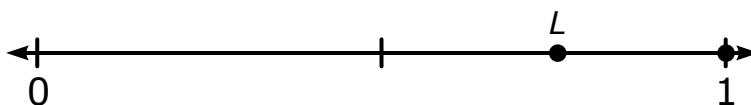
D



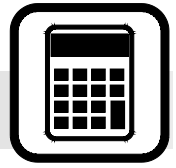
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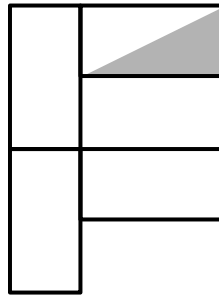
- 22 What fraction is represented by point L on this number line?



- A $\frac{1}{2}$
- B $\frac{2}{3}$
- C $\frac{2}{4}$
- D $\frac{3}{4}$
- 23 Carlos and his friends collected 72 rocks. Each person collected 9 rocks. How many people collected rocks?
- A 8
- B 9
- C 63
- D 81
- 24 Jasmine wrote 2 pages in her journal every day for 7 days. Her journal has 32 total pages. How many pages does Jasmine have left to write before her journal will be full?
- A 14 pages
- B 18 pages
- C 25 pages
- D 30 pages



25 What fraction of the area of this figure is shaded?

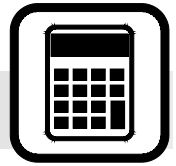


- A $\frac{1}{4}$
- B $\frac{1}{6}$
- C $\frac{1}{8}$
- D $\frac{1}{10}$

26 A truck rental company charges \$20 per day plus a onetime fee of \$40 to rent a truck. A person needs to rent a truck for 9 days. How much will the person pay to rent the truck?

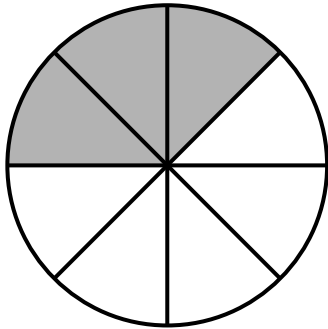
- A \$540
- B \$380
- C \$220
- D \$180

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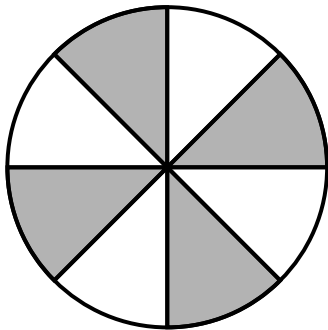


27 Which circle is $\frac{3}{4}$ shaded?

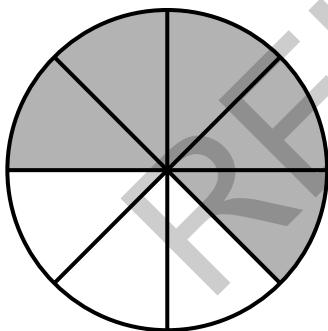
A



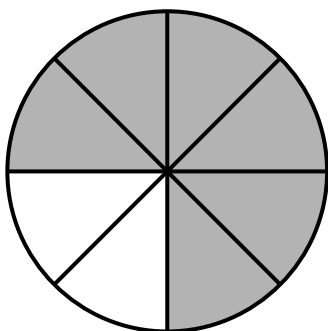
B



C



D





28 A third-grade class voted for their favorite subject, as shown.

Favorite Subjects

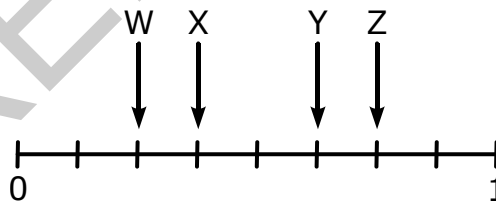
Math	△ △ △ △ △
Reading	△ △ △
Science	△ △
Writing	△ △ △

Key: △ = 2 votes

How many more students voted for math than science?

- A 7
- B 6
- C 4
- D 3

29 Which letter has a value of $\frac{3}{4}$ on this number line?

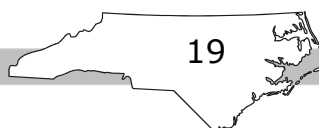


- A W
- B X
- C Y
- D Z



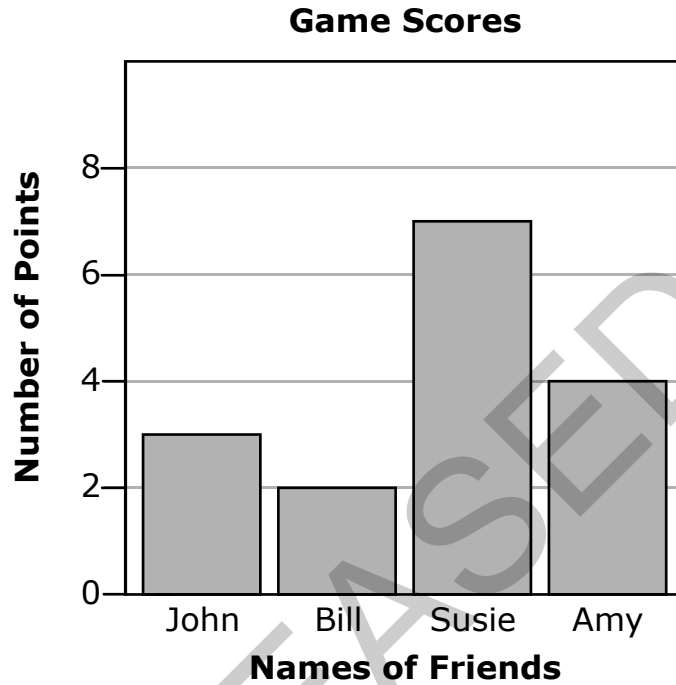
- 30 Sarah drew a shape. It was a quadrilateral, and all the sides were the same length. Which shape did Sarah draw?
- A pentagon
 - B rhombus
 - C trapezoid
 - D triangle
- 31 A train makes 9 stops each day. How many days will it take for the train to make 63 stops?
- A 7
 - B 9
 - C 54
 - D 72

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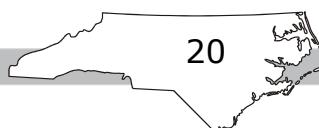


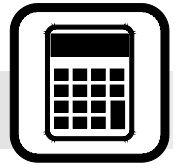
- 32 Four friends were playing a game. John and Bill were on Team 1. Susie and Amy were on Team 2. They made a graph to show how many points each person scored.



How many more points did Team 2 score than Team 1?

- A 5
- B 6
- C 11
- D 16



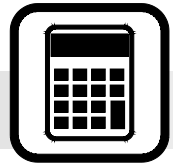


- 33 A school collects canned food for charity.
- Third-graders collected 327 cans.
 - Third-graders collected 138 more cans than fourth-graders.

How many cans did the fourth grade collect?

- A 289
B 211
C 189
D 111

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34 Which expression can be used to find the missing number in this multiplication table?

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48		60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45		63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

- A $63 + 9$
- B $45 - 9$
- C $63 - 15$
- D $45 + 9$



35 Donna shaded this rectangle.



Michael's rectangle is the same size. He shaded less than Donna. Which choice could be the shaded fraction of Michael's rectangle?

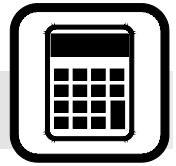
- A $\frac{1}{3}$
- B $\frac{2}{3}$
- C $\frac{3}{3}$
- D $\frac{4}{3}$

36 Ellen is comparing two rectangles.

- Rectangle *P* is 5 inches long and 1 inch wide.
- Rectangle *Q* is 4 inches long and 2 inches wide.

Which statement correctly compares the areas and perimeters of the rectangles?

- A The rectangles have equal areas, and rectangle *P* has a greater perimeter.
- B The rectangles have equal areas, and rectangle *Q* has a greater perimeter.
- C The rectangles have equal perimeters, and rectangle *P* has a greater area.
- D The rectangles have equal perimeters, and rectangle *Q* has a greater area.

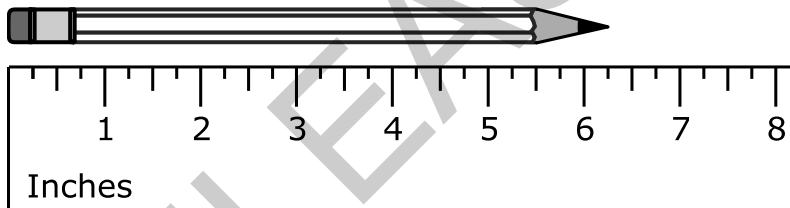


- 37 Lacey has a bookcase with 6 shelves.
- She used only 4 of the shelves.
 - She put 6 books on each shelf.

Which choice shows another way Lacey could put the same number of books in the bookcase, but this time, using all of the shelves?

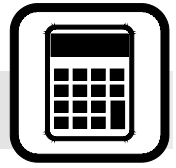
- A 2 books on each shelf
- B 4 books on each shelf
- C 10 books on each shelf
- D 24 books on each shelf

- 38 This shows a pencil and a ruler.



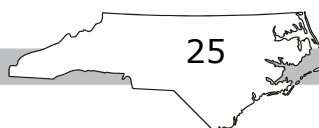
What is the length of the pencil?

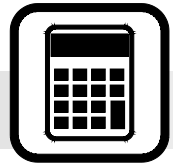
- A $5\frac{1}{2}$ inches
- B 6 inches
- C $6\frac{1}{4}$ inches
- D $6\frac{1}{2}$ inches



- 39 Tanya baked 125 cookies for a bake sale. Mark baked 67 fewer cookies than Tanya. How many cookies did they bake in all?
- A 183
 - B 192
 - C 250
 - D 267
- 40 Which answer choice shows two correct ways to arrange 21 pennies in equal rows?
- A 2 rows of 1, or 1 row of 2
 - B 7 rows of 3, or 3 rows of 7
 - C 8 rows of 3, or 3 rows of 8
 - D 20 rows of 1, or 1 row of 20

RELEASED



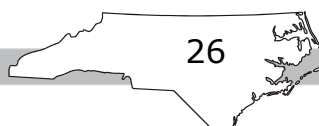


Directions:

This is the end of the mathematics test.

- 1. Put all of your papers inside your test book and close your test book.**
- 2. Place your calculator on top of the test book.**
- 3. Stay quietly in your seat until your teacher tells you that testing is finished.**

RELEASED



**Grade 3
Mathematics
RELEASED Form
2018–2019
Answer Key**

Item Number	Type	Key	DOK	Domain
S1	MC	A		
S2	MC	C		

Calculator Inactive



Item Number	Type	Key	DOK*	Domain
1	MC	B	1	NC.3.G.1
2	MC	A	1	NC.3.NF.3
3	MC	C	1	NC.3.OA.3
4	MC	A	2	NC.3.MD.1
5	MC	C	2	NC.3.NBT.2
6	MC	A	1	NC.3.NF.3
7	MC	B	1	NC.3.MD.7
8	MC	D	1	NC.3.NF.1
9	MC	D	1	NC.3.NBT.2
10	MC	A	1	NC.3.NF.4
11	MC	B	2	NC.3.OA.8
12	MC	D	2	NC.3.NF.1
13	MC	C	1	NC.3.MD.1
14	MC	B	2	NC.3.NF.2
15	MC	B	2	NC.3.OA.3
16	MC	C	2	NC.3.NBT.3
17	MC	A	2	NC.3.OA.8
18	MC	C	1	NC.3.NBT.2

GRADE 3 MATHEMATICS—RELEASED

Item Number	Type	Key	DOK	Domain
19	MC	D	1	NC.3.OA.3
20	MC	B	1	NC.3.MD.8

Calculator Active



Item Number	Type	Key	DOK	Domain
21	MC	A	2	NC.3.NF.3
22	MC	D	1	NC.3.NF.2
23	MC	A	2	NC.3.OA.2
24	MC	B	2	NC.3.OA.8
25	MC	C	2	NC.3.NF.1
26	MC	C	2	NC.3.OA.8
27	MC	D	1	NC.3.NF.3
28	MC	B	2	NC.3.MD.3
29	MC	D	2	NC.3.NF.2
30	MC	B	1	NC.3.G.1
31	MC	A	1	NC.3.OA.3
32	MC	B	2	NC.3.MD.3
33	MC	C	2	NC.3.NBT.2
34	MC	D	2	NC.3.OA.9
35	MC	A	1	NC.3.NF.4
36	MC	D	2	NC.3.MD.8
37	MC	B	2	NC.3.OA.1
38	MC	C	1	NC.3.MD.2
39	MC	A	2	NC.3.OA.8
40	MC	B	1	NC.3.OA.1

***DOK:**

1 = Recall

2 = Skill/Concept

3 = Strategic Thinking