North Carolina EOG 2018 Grade 3 Math

Exam Materials
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Released Items

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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

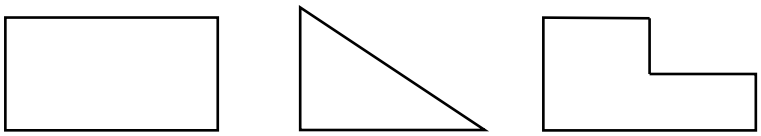
B 6

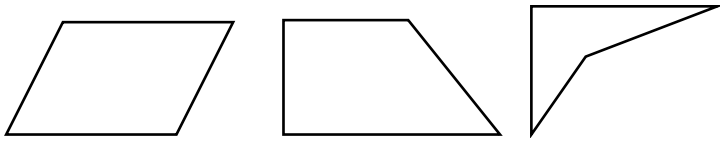
C 7

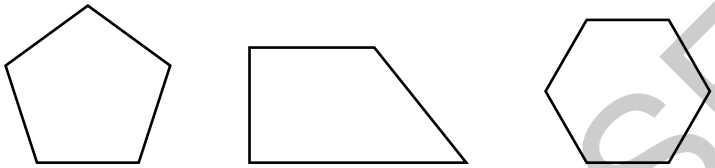
D 8

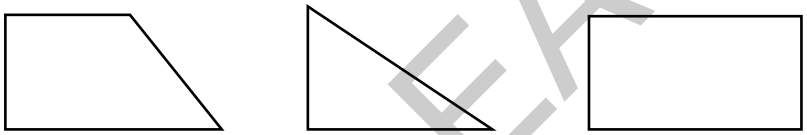
STOP

1 Which group of figures contains only quadrilaterals?

A 

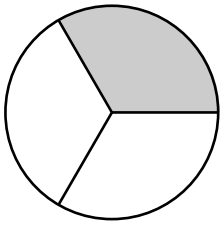
B 

C 

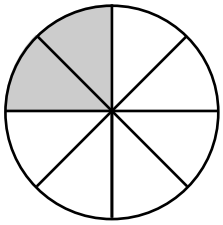
D 

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

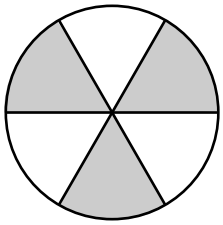
A



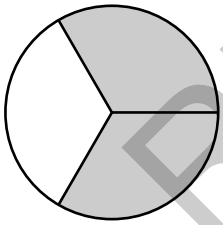
B



C



D



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

A $6 = 30 \div r$

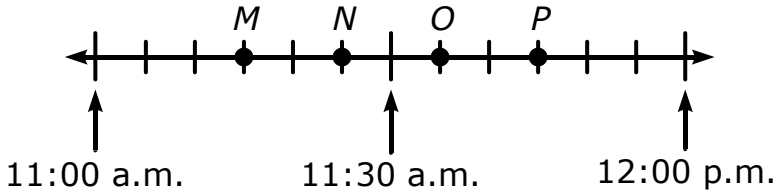
B $7 = 54 \div r$

C $7 = 49 \div r$

D $9 = 72 \div r$

Go to the next page.

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?

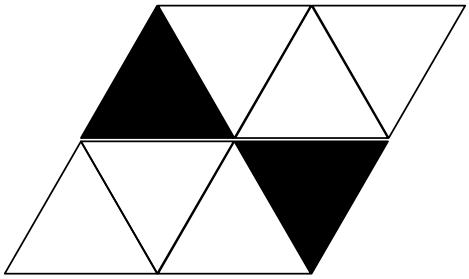
A 700

B 800

C 900

D 1,000

6 What fraction of this figure is shaded?



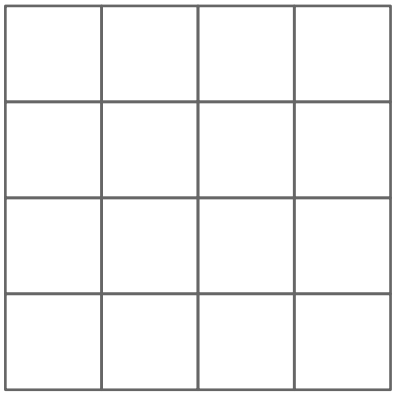
A $\frac{1}{4}$

B $\frac{1}{5}$

C $\frac{3}{4}$

D $\frac{2}{5}$

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

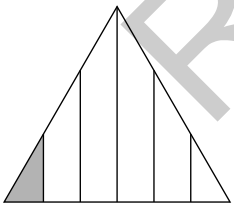
B 8 units long and 2 units wide

C 10 units long and 6 units wide

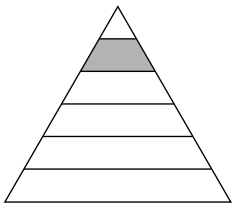
D 12 units long and 4 units wide

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?

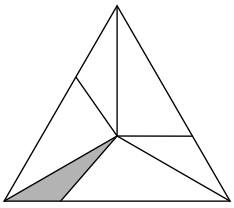
A



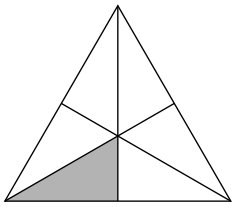
B



C



D



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

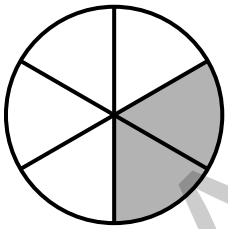
A 262 seats

B 152 seats

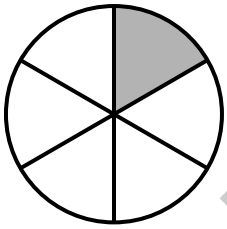
C 148 seats

D 138 seats

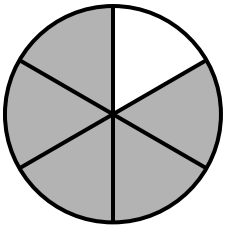
10 Which figure could be added to the diagram to make it true?



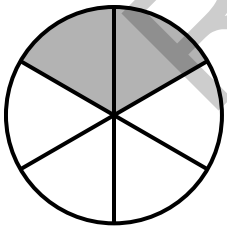
A



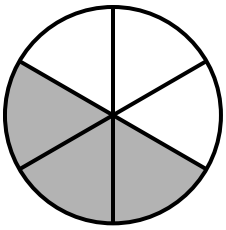
B



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?

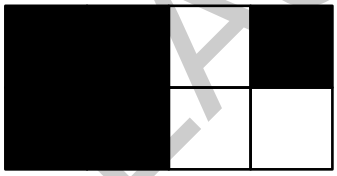
A $3 \times 5 + n = 36$

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?

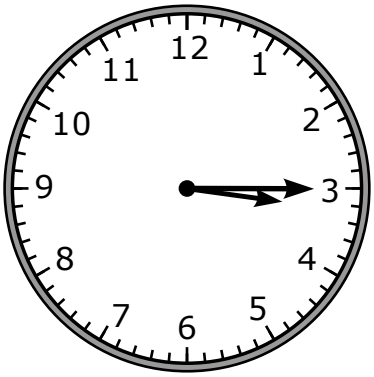
A $\frac{2}{3}$

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

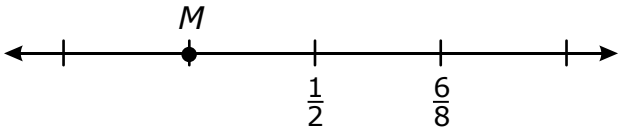
B 3:15

C 3:40

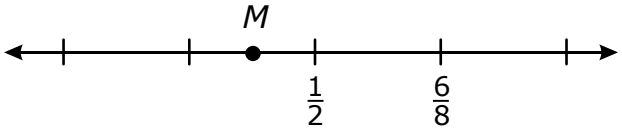
D 4:05

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

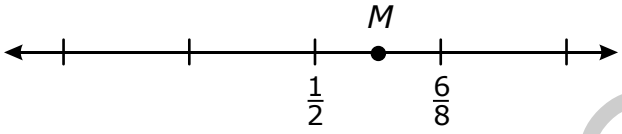
A



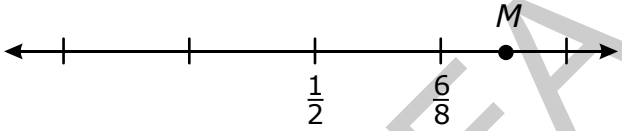
B



C



D



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 $56 - 8 = n$

Go to the next page.

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?

$$M \div 7 = 7$$

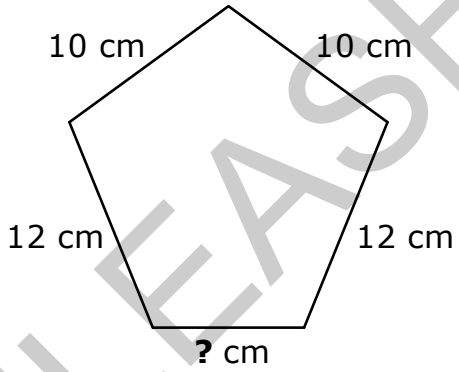
A 1

B 14

C 42

D 49

20 The perimeter of this pentagon is 52 cm.



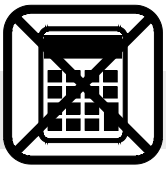
What is the missing length?

A 6 cm

B 8 cm

C 9 cm

D 10 cm



This is the end of the calculator inactive test questions.

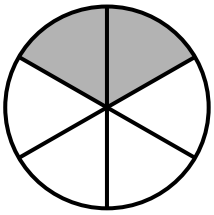
Directions:

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.**

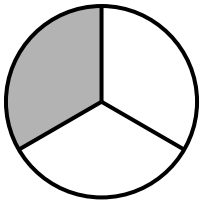
3. **Do not begin work on the calculator active test questions until your teacher has given you a calculator.**

21 A fraction of this circle is shaded.

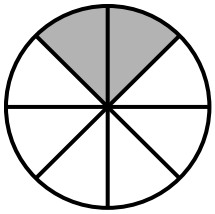


Which circle has an equal fraction shaded?

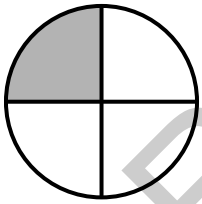
A



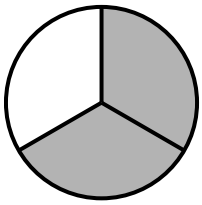
B



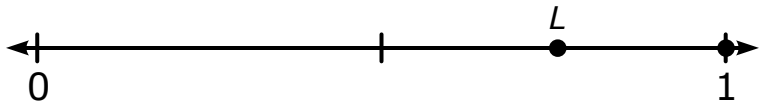
C



D



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?

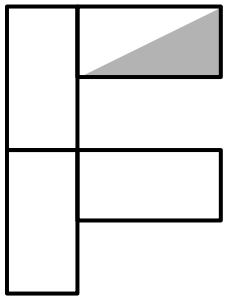
A 14 pages

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

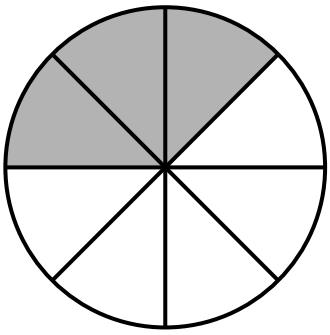
B $380

C $220

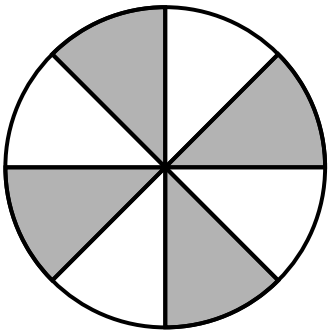
D $180

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

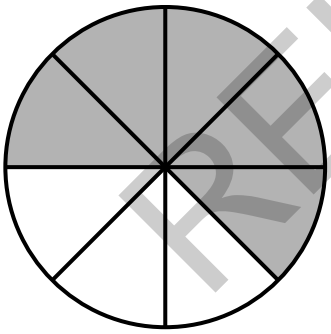
A



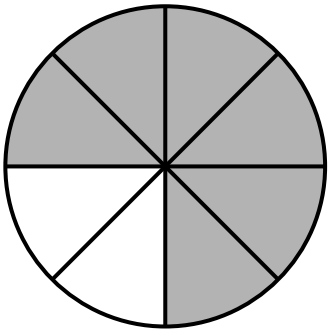
B



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?

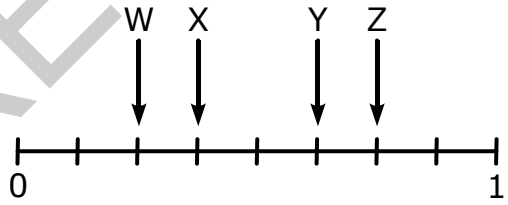
A 7

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?

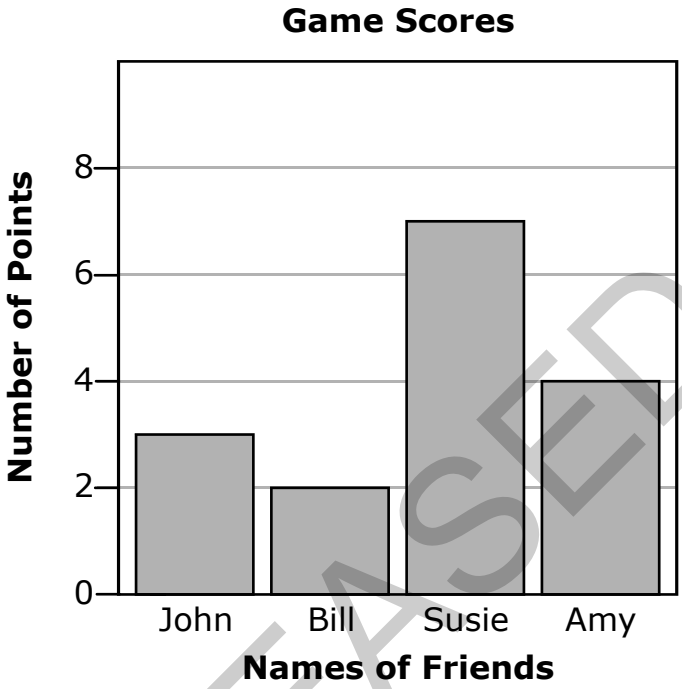
A 7

B 9

C 54

D 72

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

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?

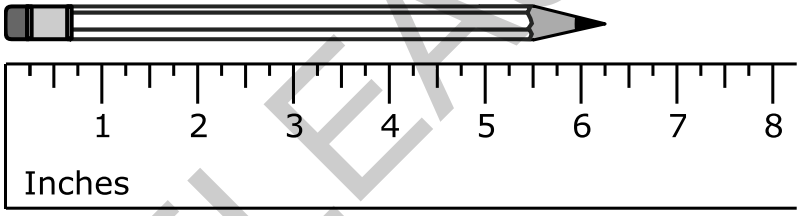
A 2 books on each shelf

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

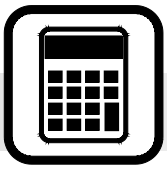
40 Which answer choice shows two correct ways to arrange 21 pennies in equal rows?

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



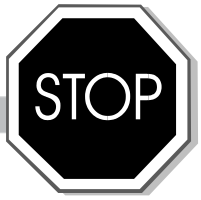
Directions:

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.**



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

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