Practicing for the TerraNova



How can this booklet help? A note to families

In the booklet you hold now, there is a practice TerraNova. This test is a simulation of the test students take at the end of the forth grade. It can be used at any point during the year, but it is best taken at the end of the school year, just before the real test.



What do I need to know about the TerraNova?

The mathematics TerraNova that you will take at the end of this year is a timed test. What does this mean for you?

- ★ While the TerraNova is a timed test, it is designed such that you should have enough time to finish all items without rushing. If you get frustrated, bored, or lose concentration, just take a deep breath, relax, and continue working.
- ★ There are about 60 questions for you to answer.
- ★ If you get to a question that seems really hard, just do your best and move on. Don't let yourself get stuck for too long.

Another important thing to remember is that on the TerraNova, there is no penalty for guessing.

- ★ You should always do your best to answer a question, or eliminate as many wrong answers as you can. But if you haven't narrowed the answer down to one choice, you should still guess. You can only gain points!
- ★ After all, this is a multiple-choice test.

 The answer is right in front of you.

 You just need to be able to pick it out!



Bubbles

The TerraNova is a computer-scored test. This means that instead of your teacher correcting your test, a computer will score it. The computer looks at the bubbles on your answer sheet, but doesn't care what you wrote in the test booklet. The only thing it sees is your pencil marks on the answer sheet.

Filling in these bubbles is easy. There are some rules you need to follow, though, to be sure that the computer reads your answers correctly.

Fill in each bubble completely, and fill in only one bubble for each question.

✓ Correct: A B D E

X Incorrect: A B C X E

X Incorrect: A B Ø D E

X Incorrect: A B Ø D E

X Incorrect: A D C D E

If you make a mistake and need to change your answer, be sure to erase completely.

✓ Correct: A B D E

X Incorrect: A D E

X Incorrect: B D E

You need to be careful about not writing on the answer sheets, except to fill in your answers.

How do I tackle a TerraNova question?

- ★ Read the problem.
- ★ Write out what you know in the white areas of the booklet. Use a number sentence, a diagram, a picture, or whatever helps you understand what the problem is asking and what things are involved.
- ★ Solve the problem and match your answer to one of the choices.
- ★ If you can't solve the problem because you don't know what number sentence to write or diagram to draw, then go to the answers. Try to eliminate answers that don't make sense by putting them into the question to see if they fit.

Andrea has \$0.95. She wants to buy 2 pears that are \$0.65 each. How much more money does she need?

- **A** \$0.25
- **B** \$0.35
- **C** \$1.30
- **D** \$2.25



How do I make sure I chose the right answer?

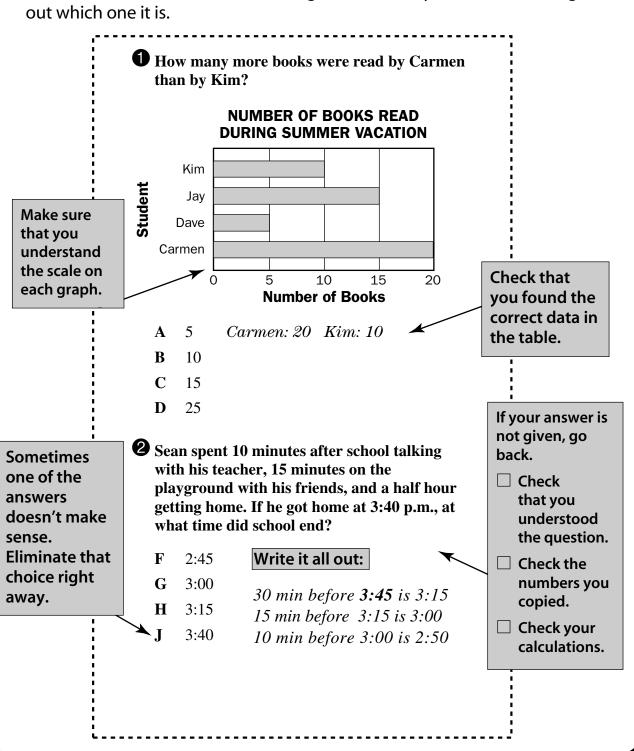
Ask yourself these questions:

- ★ Did I use the right pieces of information?
 Sometimes you don't need to use all the facts and numbers in the problem.
- ★ Does my answer make sense?
 See if your answer should be greater than or less than the numbers in the problem.
- ★ Did I answer the question?
 Reread the question to be sure you used the correct operation and understood what the problem asked.
- ★ Did I do the math correctly?
 - Check your math. Try reversing what you did, using a number sentence from the same family of facts. For example, if you said 49 11 = 38, check your subtraction by adding 38 + 11. Make sure you regrouped if you needed to. Make sure you lined up the digits properly.
- ★ Did I fill in my answer correctly?Look at page 6 to see how to do this.

Juanita has 14 pencils and 3 pencil cases. If she gets 8 more pencils, how many pencils will she have altogether?

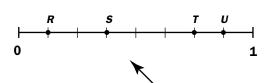
- **A** 6
- **B** 17
- **C** 22
- **D** 25

A multiple-choice test can be the easiest kind of a test. Why? Because you know that one of the choices is the right answer. All you have to do is figure out which one it is.



Practicing TerraNova Questions

Which point shows $\frac{3}{4}$ on the number line?



- A Point R
- ${\bf B}$ Point S
- C Point T
- \mathbf{D} Point U

Make sure you understand what is represented by each mark on the number line.

2 The picture of the star is folded in half along a line of symmetry. How many points will the star have when the picture is unfolded?

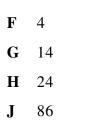


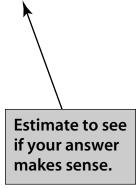
- **F** 3
- \mathbf{G}
- **H** 5
- **J** 6

- **3** Which of these numbers is greatest?
 - A one hundred sixty-one thousand three hundred eleven
 - **B** five hundred four thousand, five hundred five
 - C one hundred fifty-two thousand, two hundred fifty-nine
 - D six hundred fourteen thousand, two hundred eighty nine

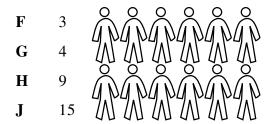
Write in the white space when you're working on a problem.

4 Of the 50 students who are going on the field trip, 36 are already on the bus. How many students still need to get on the bus?





6 Mr. Martinez has 12 students who take flute lessons from him. He has his students work in groups of 3 to practice. How many groups are there?



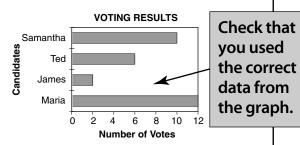
6 A store has 4 rows of fish tanks with 5 tanks in each row. How many tanks are there in total?



200

Sometimes it helps to draw a picture or a diagram.

The fourth graders in Ms. Balfour's class voted for their class representatives. They recorded their results in this bar graph.



How many votes did Maria get?

- **A** 4
- **B** 6
- **C** 12
- **D** 18
- 8 Four students in Ms. Balfour's class were absent on the day of the voting. When they got back to school their votes were added to the bar graph. Two students voted for James and two voted for Samantha. Which students have the same number of votes now?
 - **F** Samantha and Ted
 - **G** Ted and James
 - H Maria and Samantha
 - J They all have different numbers of votes.

9 Miki has the following coins in her pocket.



Use the picture. Cross out 60¢, and count how much is left.

She buys a snack for 60¢. Which set of coins shows how much money she has left?

A







B









 \mathbf{C}





D





Check, please.

Before turning in the test, go back one last time to check.

- ☐ I filled in 1 (and only 1!) bubble for each question.
- ☐ I checked all my math.
- \square My answers make sense.

Name: _____ Date: _____

SAMPLE A

- **A** 55
- **B** 11
- **C** 65
- **D** 25
- **E** None of these

SAMPLE B

Charlie has 37 marbles in his marble collection. His cousin Shelly gives him 41 more marbles. About how many marbles does Charlie now have in his collection?

- **F** 80
- **G** 90
- **H** 100
- **J** 120

SAMPLE C

Use the inch side of your ruler to answer this question.

Which square is one inch wide?

- A _____
- В
- C
- D

13

Part I 15 minutes

A 712

B 83

C 82

D 72

E None of these

F 768

G 668

H 669

J 658

K None of these

$$3 7 \times 4 =$$

A 28

B 24

C 35

D 21

E None of these

4
$$3 \times 212 =$$

F 636

G 633

H 601

J 663

K None of these

A 8.5

B 0.9

C 5.85

D 0.8

E None of these

6
$$\frac{4}{6} - \frac{3}{6} =$$

F $\frac{1}{3}$

G $1\frac{1}{6}$

H $\frac{1}{6}$

J 1

K None of these

KICKBALL TOURNAMENT

DIRECTIONS

A 4^{th} -grade class divides into 4 teams to hold a kickball tournament. The teams are named after streets near the elementary school. They are:

The Basin Street Blues The Grant Street Greens

Do numbers 7 through 11.

- 7 The Reds won their first 12 games. They then lost their next 5 games. How many more wins than losses do the Reds have?
 - **A** 6
 - **B** 10
 - **C** 7
 - **D** 17
 - **E** None of these

8

TEAM	1	2	3	4	5	Final Score
Greens	7 2		0	4	6	?
Oranges	4	1	5	2	8	?

The chart shows the number of runs scored by the Greens and the Oranges in each inning of a five-inning game. What was the total number of runs scored by **both** teams for the entire game?

- **F** 13
- **G** 60
- **H** 46
- **J** 39
- **K** None of these

15

9

In a game between the Blues and the Greens, the Blues scored 25 runs and the Greens scored 8 runs. By how many runs did the Blues win the game?

- **A** 23
- **B** 17
- **C** 16
- **D** 33
- **E** None of these
- There are 20 students in the 4th-grade class. If the students are divided evenly among the 4 teams, how many students are on each team?
 - **F** 5
 - **G** 2
 - **H** 7
 - J 4
 - **K** None of these

- During a five-inning game, the Oranges scored 4 runs in each of their five innings. Which number sentence could be used to find out how many runs the Oranges scored during the game?
 - **A** $4 + 4 = \Box$
 - **B** 5-4=
 - $\mathbf{C} \quad 4 \times 5 = \boxed{}$
 - **D** $5 \div 4 =$
- Look at the number sentences below. Which one is true when you put 3 in the box?
 - \mathbf{F} 18 + 6 =
 - **G** 18 6 =
 - **H** $18 \times 6 =$
 - \mathbf{J} 18 ÷ 6 =

- Which number sentence has the **smallest** answer?
 - **A** 21 + 3 =
 - **B** 21 3 =
 - \mathbf{C} 21 × 3 =
 - **D** $21 \div 3 =$

14



School Book Store Price List

Binder..... \$2.75

Pencil.....\$0.28

Pen..... \$0.95

Ruler.....\$1.05

Calculator..... \$8.99

Marker Set..... \$3.89

Mark has exactly \$4.00. Which two items can he afford to buy?

- **F** a marker set and a pen
- **G** a binder and a ruler
- **H** a calculator and a pencil
- **J** a binder and a calculator

DIRECTIONS

For questions 15, 16, and 17, use estimation to find the best answer. You do not have to find the exact answers for these questions.

Use estimation to find the problem that will have an answer of approximately 300.

T 11	фо. о. т
T-shirts	\$8.95
Baseball caps	\$4.90
Blue jeans	\$32.95
Sneakers	\$39.00
	,

Look at the prices for a t-shirt, baseball cap, blue jeans, and sneakers. Which answer is closest to the cost of buying one of each?

F \$50

G \$60

H \$75

J \$85

Which answer is the best estimate of 82×6 ?

A 48

B 480

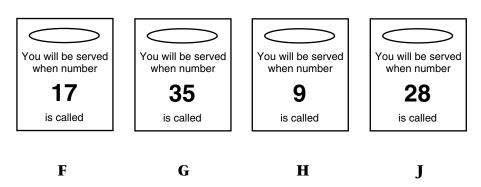
C 640

D 800

AT THE SNACK BAR

The snack bar at the local swimming pool sells sandwiches, french fries, pizza, and beverages. Do numbers 18 through 23.

Customers at the snack bar must take a number to be served. Marla's ticket shows a number that is divisible by 4. Which of the tickets below could be hers?



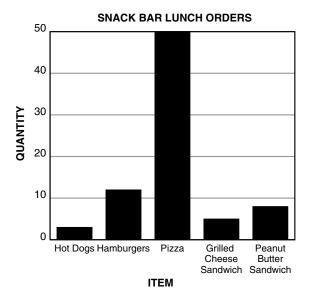
- Jerry has ticket number 10. The first person in line has ticket number 1. How many people are in line in front of Jerry?
 - **A** 9
 - **B** 10
 - **C** 11
 - **D** 12

August

Sun	Mon	Mon Tues Wed Th		Thurs	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

The swimming pool and the snack bar close for the year on the first Monday of September. What will the date be on the day that the swimming pool and snack bar close?

- **F** September 1
- **G** September 2
- **H** September 5
- J September 8



DIRECTIONS

The graph shows how many sandwiches and pizza slices customers ordered from the snack bar at lunch time on Monday. Look at the graph. Then do numbers 21, 22, and 23.

- About how many hamburgers were ordered?
 - **A** 6
 - **B** 8
 - **C** 12
 - **D** 18

22

The number of people who ordered peanut butter sandwiches is equal to the total number of people who ordered which two items?

- **F** hamburgers and hot dogs
- **G** hot dogs and grilled cheese sandwiches
- **H** grilled cheese sandwiches and pizza slices
- J hamburgers and grilled cheese sandwiches
- On Tuesday the same customers returned to the snack bar for lunch. Everyone who ordered grilled cheese on Monday ordered pizza on Tuesday. No other customers changed their orders. About how many pizza slices did the snack bar sell on Tuesday?
 - **A** 45
 - **B** 50
 - **C** 70
 - **D** 85

Use the centimeter side of your ruler to answer this question. Which arrow is closest to 6 centimeters long?

Look at the answers. Of the four answers, which unit would hold the **least** amount of water?

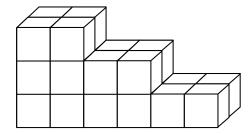
A one quart

B one gallon

C one pint

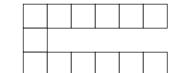
D one cup

26

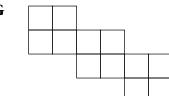


Which answer shows the top view of the blocks shown above?

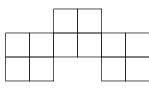
F



G

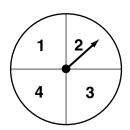


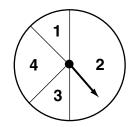
Н



J







Spinner 1

Spinner 2

- Fill in the blank:
 A student using Spinner 2 is most likely to spin a ______.
 - **A** 1
 - **B** 2
 - **C** 3
 - **D** 4
- Compare Spinner 1 and Spinner 2. Spinner 1 is more likely than spinner 2 to land on which numbers?
 - **F** 1 and 4
 - **G** 2 and 4
 - **H** 1 and 3
 - **J** 2 and 3

29

Barbara's father doubled her weekly allowance. Her new weekly allowance is \$3.00. What was her old weekly allowance?

- **A** \$1.00
- **B** \$1.50
- **C** \$2.00
- **D** \$6.00
- A school held two assemblies, one for fourth graders and one for fifth graders. One assembly was attended by 189 fourth graders; the other was attended by 163 fifth graders. About how many fourth- and fifth-graders attended one of the assemblies?
 - **F** 350
 - **G** 370
 - **H** 390
 - J 450

23

The picture shows all of Martin's cubes. If Martin wants to have exactly 300 cubes, how many more cubes does he need?

A 4

B 10

C 59

D 100

32

Thousands	Hundreds	Tens	Ones	
 	III		 	

Look at the chart. Which answer shows the same number as the chart?

F 7,361

G 7,316

H 7,036

J 7,306

33



Betty's piano lesson starts at the time shown on the clock. Her lesson lasts one hour. What time will it be when her lesson is over?

A 8:45

B 10:15

C 10:45

D 11:00

Movies at the multiplex theater start on the quarter-hour. Which of these might be the starting time of a movie showing at the multiplex?

F 6:15

G 7:20

H 8:25

J 9:50

FAVORITE BOOKS

The students in Mr. Ewing's class voted for their all-time favorite books. Each student was allowed to vote for only one book. The chart shows how the students voted. Read the chart. Then do numbers 35 through 37.

Book Title	Number of Students
Charlotte's Web	5
The Secret Garden	3
A Wrinkle in Time	7
The Black Stallion	4
The Chronicles of Narnia	10

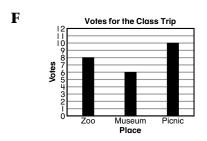
- How many students chose "The Black Stallion" as their favorite book?
 - **A** 4
 - **B** 5
 - **C** 7
 - **D** 10

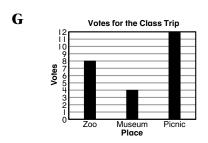
36

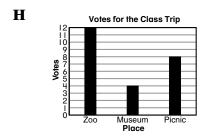
What is the total number of students who chose "A Wrinkle in Time" or "Charlotte's Web" as their favorite book?

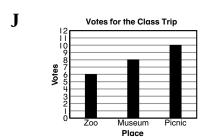
- **F** 3
- **G** 12
- **H** 14
- J 17
- There were 4 students who did not vote because they were absent from class on the day the vote was held. What is the total number of students in Mr. Ewing's class?
 - **A** 33
 - **B** 35
 - **C** 38
 - **D** 40

Ms. Turner's class voted to determine where they would go on their class trip. Which of the following graphs shows the number of votes received by each location?









All of the letters below change when reflected EXCEPT which one. Which is it?

- A A
- В
- c S
- D

Which number sentence would **not** help you figure out how much three bean burritos cost at Mel's Cafeteria?

$$\mathbf{F}$$
 3 × 85¢ =

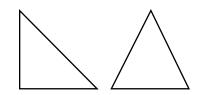
G
$$85c + 85c + 85c =$$

H
$$85\mathfrak{c} \times 3 = \square$$

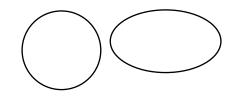
$$\mathbf{J} \qquad 85\mathfrak{C} \times 85\mathfrak{C} = \boxed{}$$



B



C



D

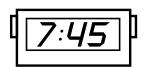


42 Complete the pattern:





43





"School day begins"

"School day ends"

According to the clocks, how long is the school day?

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

TIME FOR SCHOOL

There are four different 4thgrade classes at Martin Luther King Jr. Elementary School. The chart shows how many students are in each class. Study the chart. Then do numbers 44 and 45.

Teacher	Number of Students
Ms. Johnson	24
Mr. Weaver	26
Mr. Altobelli	21
Ms. Bauer	22

- Which lists shows the classes arranged by class size from greatest to least?
 - **F** Mr. Weaver, Ms. Bauer, Ms. Johnson, Mr. Altobelli
 - **G** Ms. Johnson, Ms. Bauer, Mr. Altobelli, Mr. Weaver
 - **H** Mr. Weaver, Ms. Johnson, Ms. Bauer, Mr. Altobelli
 - J Mr. Altobelli, Ms. Johnson, Ms. Bauer, Mr. Weaver

45

Mr. Weaver wants to divide his class into groups of 6 for a science project. How many complete groups of 6 can be formed by Mr. Weaver's students?

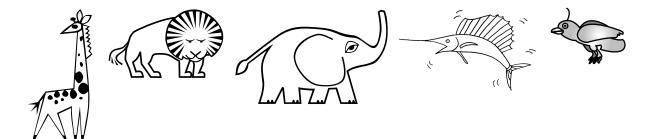
- **A** 2
- **B** 4
- **C** 8
- **D** 10

46

Number of Apples	Calories
2 apples	160
3 apples	240
5 apples	400
6 apples	480
8 apples	?

Look at the chart. How many calories are there in 8 apples?

- **F** 550
- **G** 640
- **H** 720
- J 740



What fraction of the animals have four legs?

- $\mathbf{A} = \frac{1}{5}$
- **B** $\frac{1}{3}$
- $\mathbf{C} \qquad \frac{2}{3}$
- **D** $\frac{3}{5}$
- **48** Follow the instructions:

Start with the number 6.

- Add 9.
- Add 7.

Subtract 5.

Subtract 3.

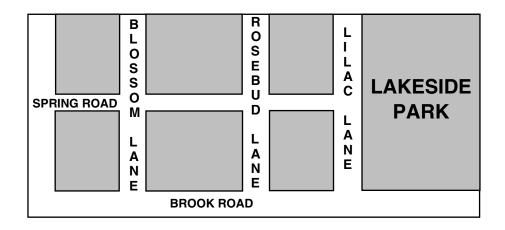
What is your final number?

- **F** 14
- **G** 16
- **H** 22
- **J** 30

DIRECTIONS

These questions are about Pleasantville and the people who live there. Do numbers 49 to 54.

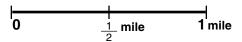
Use the map to answer numbers 49 and 50.



- **49** Which two streets are perpendicular to each other?
 - A Spring Road and Rosebud
 - Blossom Lane and Rosebud B Lane
 - \mathbf{C} Rosebud Lane and Lilac Lane
 - D Spring Road and Brook Road

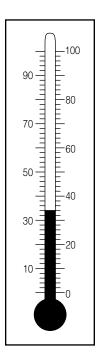
50

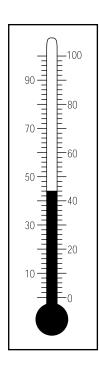
Use the inch side of your ruler to help you solve this problem. How wide is the block between Blossom Lane and Rosebud Lane?



Scale: 2 inches = 1 mile

- F 3 miles
- G 2 miles
- Н 1 mile
- $\frac{1}{2}$ mile





The thermometers show the high and low temperatures for one winter day in Pleasantville. What is the difference between the high and low temperatures?

- **A** 30 degrees
- **B** 20 degrees
- C 16 degrees
- **D** 10 degrees

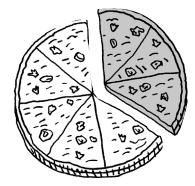
52

Bobby rides his bicycle through the neighborhood at an average speed of 7 miles per hour. To find out how far Bobby rode, you would need the answer to which question?

- **F** How much did Bobby's bicycle cost?
- **G** How many hours did Bobby ride his bicycle?
- **H** Did Bobby ride through Lakeside Park?
- **J** What street does Bobby live on?

Laurie goes to the park to ride the merry-go-round. She uses a dollar bill to buy her ticket and receives a quarter, two nickels, and a penny in change. How much does it cost to ride the merry-go-round?

- **A** 85¢
- **B** 74¢
- **C** 64¢
- **D** 38¢



Michael is eating at a pizza restaurant on Brook Road. The shaded slices of pizza show the number of slices Michael has already eaten. If Michael ate one more slice, what fraction of the pie would he have eaten?

- **F** $\frac{1}{2}$
- **G** $\frac{1}{3}$
- $\mathbf{H} = \frac{1}{4}$
- $J = \frac{1}{8}$

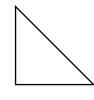
55

Which answer choice shows a square cut exactly in half?

A



B

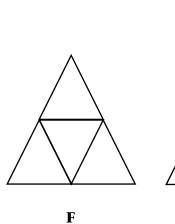


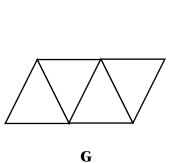
 \mathbf{C}

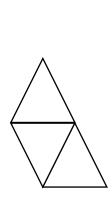


D

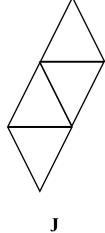
56 Which of these figures does **NOT** have the same area as the other three?







H



School Cafeteria Menu									
Main Courses	Side Dishes								
Vegetable Lasagna	Roasted Potatoes								
Broiled Chicken	Rice and Beans								
	Peas and Carrots								

Students buying lunch from the school cafeteria may order one main course and one side dish. How many different combinations of main courses and side dishes can be made from this menu?

- **A** 5
- **B** 6
- **C** 9
- **D** 12

ANSWER SHEET

Name:	 Date:	

Pa	ırt	T				Pa	ırt	II				37.	A	B	©	((E)
1 0		_				1 0						38.	(E)	(G)	\oplus	<u></u>	®
1.	A	®	©	((E)	18.	(Ē)	(G)	\oplus	((K)	39.	A	B	(C)	((E)
2.	(Ē)	G	\oplus	<u></u>	(K)	19.	A	B	©	((E)	40.	(Ē)	G	\oplus	<u>J</u>	K
3.	A	$^{\odot}$	©	((E)	20.	(F)	G	\oplus	((K)	41.	A	$^{\odot}$	(C)	((E)
4.	(Ē)	G	\oplus	((K)	21.	A	$^{\otimes}$	©	((E)	42.	(Ē)	G	\oplus	((K)
5.	(A)	$^{\odot}$	©	((E)	22.	(Ē)	(G)	\oplus	(J)	K	43.	(A)	$^{\odot}$	©	((E)
6.	(F)	(G)	\oplus	(\mathbb{K}	23.	A	$^{\otimes}$	©	((E)	44.	(Ē)	G	\oplus	($(\!\!(\!$
7.	A	$^{\odot}$	©	((E)	24.	(Ē)	G	\oplus	($(\!(\!$	45.	A	$^{\odot}$	©	((E)
8.	(Ē)	G	\oplus	(\mathbb{K}	25.	A	$^{\otimes}$	©	((E)	46.	(Ē)	G	\oplus	((K)
9.	A	$^{\otimes}$	©	((E)	26.	(Ē)	G	\oplus	($(\!(\!$	47.	(A)	$^{\otimes}$	©	((E)
10.	(Ē)	G	\oplus	(\mathbb{K}	27.	A	$^{\otimes}$	©	((E)	48.	(Ē)	G	\oplus	<u></u>	$(\!(\!$
11.	A	$^{\odot}$	©	((E)	28.	(Ē)	G	\oplus	(J)	$(\!\!(\!$	49.	(A)	$^{\odot}$	©	((E)
12.	(Ē)	G	\oplus	(J)	\mathbb{K}	29.	A	$^{\otimes}$	©	((E)	50.	(Ē)	G	\oplus	(J)	K
13.	A	$^{\textcircled{B}}$	©	((E)	30.	(Ē)	G	\oplus	(\mathbb{K}	51.	A	$^{\textcircled{B}}$	©	((E)
14.	Ð	G	\oplus	(\mathbb{K}	31.	A	$^{\otimes}$	©	((E)	52.	Ð	G	\oplus	($(\!\!(\!$
15.	A	$^{\textcircled{B}}$	©	((E)	32.	(F)	(G)	\oplus	($(\!(\!$	53.	A	$^{\textcircled{B}}$	(C)	((E)
16.	(Ē)	G	\oplus	(1)	$(\!(\!$	33.	A	$^{\otimes}$	©	(1)	(E)	54.	(Ē)	G	\oplus	①	(K)
17.	A	$^{\otimes}$	©	(1)	(E)	34.	(Ē)	G	\oplus	①	(K)	55.	A	$^{\otimes}$	©	(1)	(E)
						35.	A	$^{\otimes}$	©	((E)	56.	(Ē)	G	\oplus	((K)
						36.	(F)	G	\oplus	(])	$(\!K\!)$	57.	\bigcirc	$^{\odot}$	©	((E)