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 fifth 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 D E

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

✓ Correct: A B D E

✓ Incorrect: A D D E

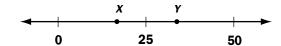
✓ Incorrect: A D D E

You need to be careful about not writing on the answer sheets, except to fill in your answers. However, you do have lots of extra space in the test booklet that you can use as scratch paper. You can write all over the white space provided in the booklet, and you should. Don't try to do the math in your head. Use the blank space under the questions to write out number sentences or draw pictures that will help you solve the problem.

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.

Points *x* and *y* represent certain numbers on the number line. Which of the following would give an answer of about 2?



- $\mathbf{A} \mathbf{y} + \mathbf{x}$
- $\mathbf{B} \quad \mathbf{y} = \mathbf{x}$
- \mathbf{C} $y \times x$
- $\mathbf{D} \ \mathbf{y} \div \mathbf{x}$



How do I make sure I chose the right answer?

Ask yourself these questions:

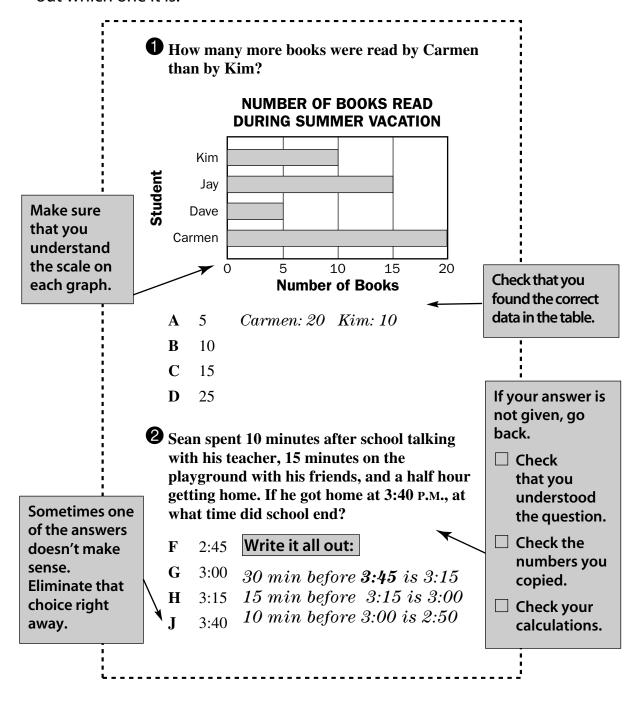
- ★ Did I use the right pieces of information?
 Sometimes you don't need to use all the facts and numbers in the problem.
- ★ Does my answer make sense?
 See if your answer should be greater than or less than the numbers in the problem.
- ★ Did I answer the question?
 Reread the question to be sure you 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.

Marika and John are painting scenery for the class play. 70 pieces of scenery need to be painted. Marika has painted 23 pieces, and John has painted 19 pieces. How many pieces have NOT been painted yet?

- A 28
- **B** 38
- **C** 42
- **D** 57

Preparing for the TerraNova

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

Make sure you

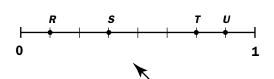
is represented

understand what

by each mark on

the number line.

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



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

- **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
- 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?

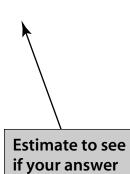


- **F** 3
- **G** 4
- H 5
- **J** 6

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

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?

F 4G 14H 24J 86



makes sense.

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

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

A 15

B 19

C 20

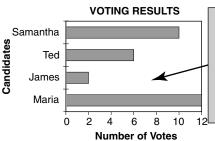
D 200

Sometimes it helps to draw a

picture or a diagram.

McGraw-Hill School Division

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



Check that you used the correct data from the 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?

 \mathbf{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

Part I 15 minutes

A 0.813

B 0.83

C 0.093

D 0.93

E None of these

$$\frac{1}{7} + \frac{5}{7} =$$

 $\mathbf{F} = \frac{6}{7}$

G $\frac{6}{14}$

 $\mathbf{H} = \frac{4}{7}$

 \mathbf{J} $\frac{1}{2}$

K None of these

A 5,333

B 531

C 4,433

D 5,433

E None of these

F 29

G 20 R5

H 30

J 14 R9

K None of these

Ms. Murdoch runs a bakery. Answer questions 5 through 8 about the bakery.

Ms. Murdoch bakes 6 loaves of bread each hour. There are 18 slices of bread in each loaf. How many slices of bread does she make each hour?

A 68

B 78

C 94

D 98

E None of these

A total of 140 cupcakes are made each day at the bakery. On Monday, only 75 cupcakes were sold. How many cupcakes made on Monday were not sold on Monday?

- F 65
- G 70
- H 75
- 215 J
- K None of these
- 7 The baker uses 5.72 pounds of flour to make a large batch of cookies. She uses 2.93 pounds of flour to make a small cake. How much flour is needed to make one large batch of cookies and one small cake?
 - A 2.79 pounds
 - В 3.89 pounds
 - \mathbf{C} 7.65 pounds
 - 8.65 pounds D

8

It takes 430 grams of sugar to make one batch of icing. The bakery makes 12 batches of icing each week. How many total grams of sugar are used for icing each week?

- F 4,302 grams
- G 4,324 grams
- H 5,160 grams
- 48,600 grams J

For questions 9 through 13 you do not need to find exact answers.

Use estimation to choose the best answer.

9 6 × 789

This product is about

- **A** 4,200
- **B** 4,800
- **C** 42,000
- **D** 48,000
- Which of the following is the best estimate of 64.29 + 92.8?
 - **F** less than 150
 - **G** between 150 and 200
 - **H** between 200 and 250
 - J greater than 250

Kenny bought one of each of the listed gifts to support public

listed gifts to support public television. What is the best estimate for the total amount of money Kenny spent on these gifts?

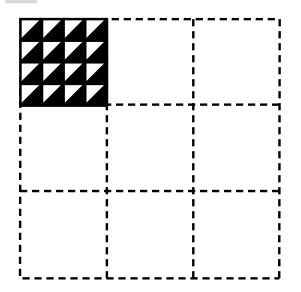
GIFTS TO SUPPORT PUBLIC TELEVISION							
Coffee Mug	\$4.89						
Tote Bag	\$5.25						
Umbrella	\$6.99						
Baseball Cap	\$5.99						

- **A** \$29.00
- **B** \$28.00
- **C** \$23.00
- **D** \$21.00
- Jeffrey delivers newspapers. He made \$137.25 one week. After he bought a birthday present for his brother, he had \$87.33 left. Which of the following is the best estimate for the cost of the birthday present Jeff bought for his brother?
 - **F** \$40
 - **G** \$50
 - **H** \$70
 - J \$90

STOP! Wait for your teacher to tell you to begin Part II.

Part II 55 minutes

13



Keri used 16 tiles to cover one part of her floor. How many more tiles does she need to finish covering the rest of her floor?

A 4

B 64

C 128

D 144

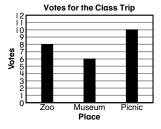
Make sure you are on Number 14 on your answer sheet.

14

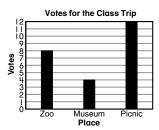
Zoo:	JHT JHT II
Museum:	IIII
Picnic:	лн III

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?

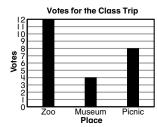
F



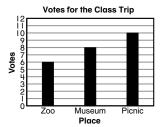
G



H



J

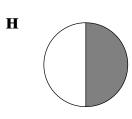


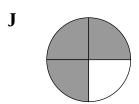
- **A** a bouquet of flowers
- **B** an apple
- **C** a pair of sneakers
- **D** a computer

Which circle is exactly three–fourths shaded?

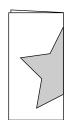






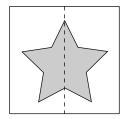


- **A** 125
- **B** 165
- **C** 145
- **D** 175

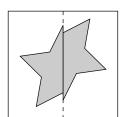


Juwan drew a picture, then folded it in half along a line of symmetry. Which of the following shows the full picture that Juwan drew?

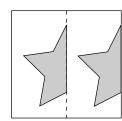
F



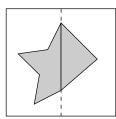
G



H



J



19

Tanya and Kerry are going to the carnival this weekend. Answer questions 19 through 23 about their weekend.

- Kerry wants to ride as many rides as possible. If each ride costs 25 cents and Kerry has \$7.00, then how many rides can he go on?
 - **A** 12
 - **B** 18
 - **C** 28
 - **D** 36
- Here is the price list for snacks at the carnival. Which snack costs the least?

\$1.75
\$2.00
\$2.50
\$1.50
\$2.25

- **F** popcorn
- **G** ice cream
- **H** candy apples
- **J** peanuts

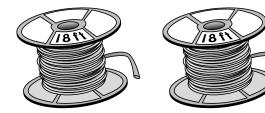
- There are 16 rides at the carnival. Kerry rides all of them except 2. Which number sentence could show how many rides Kerry went on?
 - **A** 16 + 2
 - **B** 16 2
 - \mathbf{C} 16 × 2
 - **D** 16 ÷ 2
- On Saturday, the carnival opens at 11:30 AM. If Tanya and Kerry arrive 1 hour and 15 minutes after the carnival opens, what time do they arrive?
 - **F** 11:45 AM
 - **G** 12:00 PM
 - **H** 12:45 PM
 - **J** 1:15 PM

23

The pony ride goes around the perimeter of the carnival grounds. If the carnival grounds is 4 blocks wide and 7 blocks long, how many blocks long is the pony ride?

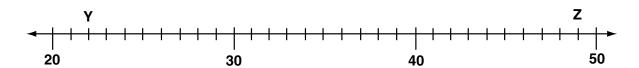
- **A** 11
- **B** 12
- **C** 22
- **D** 28
- **24** Whi

Which of the following is a correct number sentence to determine the total number of feet of wire on the full spools shown below?





- \mathbf{F} 18 + 3 = total number of feet of wire
- **G** $18 \times 3 = \text{total number of feet of wire}$
- **H** $(3 \times 18) + 18 = \text{total number of feet of wire}$
- **J** $18 \times 18 \times 18 = \text{total number of feet of wire}$

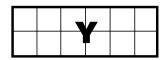


Points Y and Z represent certain numbers on the number line. Which of the following would give an answer of about 70?

- $\mathbf{A} \quad \mathbf{Y} \mathbf{Z}$
- $\mathbf{B} \quad \mathbf{Y} \times \mathbf{Z}$
- $\mathbf{C} \quad \mathbf{Y} + \mathbf{Z}$
- $\mathbf{D} \quad \mathbf{Y} \div \mathbf{Z}$

- The order of entries in a parade is marching band, float, circus animal, marching band, float, circus animal and so on. If marching bands always come first, then which entry could be an elephant?
 - **F** the 8th
 - **G** the 10th
 - **H** the 12th
 - **J** the 13th

27



1 cm _____



How much greater is the perimeter of rectangle Y than the perimeter of rectangle Z?

- **A** 2 cm
- **B** 3 cm
- **C** 4 cm
- **D** 8 cm

Each mark on the number line above represents an increase of

- **F** 0.02
- **G** 0.2
- **H** 2
- **J** 20
- Gina formed a triangle with two sides of equal length and one side of a different length. What type of triangle did she form?
 - A isosceles triangle
 - **B** right triangle
 - **C** equilateral triangle
 - **D** obtuse triangle
- Andy has a snake which is as long as 2 yardsticks laid end to end. How many feet long is Andy's snake?
 - **F** 2 feet
 - **G** 3 feet
 - **H** 6 feet
 - J 8 feet

- In a classroom there are an odd number of boys and an even number of girls. Which is a possible total number of students in the classroom?
 - **A** 12
 - **B** 20
 - **C** 25
 - **D** 32
- What number goes in the blank in the pattern below?
 - 46, 39, 32, 25, ____, 11, 4
 - **F** 18
 - **G** 23
 - **H** 10
 - **J** 20

The Melzer family owns a gift shop. Answer questions 33 through 37 about their gift shop.

The number of greeting cards sold at the shop this week is 3,992. What is this number of cards rounded to the nearest ten?

A 3,900

B 3,930

C 3,990

D 4,000

34

ITEM	QUANTITY SOLD
Pen	20
Flowers	34
Picture Frame	23

The table shows how many of each of 3 items were sold at the gift shop yesterday. If the picture frames cost \$1.39 each, how much should the store have collected yesterday for the picture frames they sold?

F \$32.97

G \$31.97

H \$27.80

J \$6.95

There were 68 customers on Monday.

There were a total of 150 customers on Monday and Tuesday.

How many customers came in on Tuesday?

- **A** 82
- **B** 92
- **C** 98
- **D** 218

36

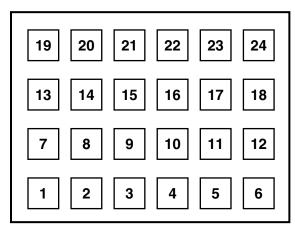
There are 5 pencils in each pack. There are 20 packs in each box. There are 20 boxes in each case. What is the total number of pencils in a case?

- **F** 20
- **G** 200
- **H** 2,000
- J 20,000

37

Bennie wants to purchase a candy bar for 85 cents from the vending machine outside the gift shop. He tries to use a \$1 bill, but the machine is out of change. If he goes into the gift shop to get change for his dollar, which combination of coins should he ask for so that he can pay the vending machine with exact change?

- **A** 4 quarters
- **B** 10 dimes
- C 2 quarters, 5 dimes
- **D** 3 quarters, 5 nickels



FRONT

If each row contains the same number of seats, then the seat two rows behind seat number 21 will be

F number 27

G number 30

H number 31

J number 33

39

Anyone who sits in a seat number that is a multiple of 4 will be chosen to participate in the assembly. Anyone who sits in a seat number that is a multiple of 6 will receive a prize. Which of the following statements is correct?

- A There will be more people chosen to participate than prize winners
- **B** There will be more prize winners than people chosen to participate
- C The number of people selected to participate is the same as the number of prize winners
- **D** All people chosen to participate will also win a prize.

The log above shows the distance that Raja drove for 4 deliveries. What was the average distance of the 4 deliveries?

- **F** 8 miles
- **G** 15.2 miles
- **H** 20.5 miles
- J 21 miles

Sneaker Sale!
5 pairs of sneakers
for only
\$139.00

Which of the following number sentences would correctly determine what you are paying for each pair of sneakers if you buy five pairs?

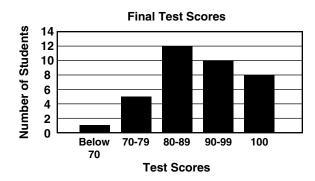
- **A** \$139.00 + 5 =
- **B** \$139.00 5 =
- **C** $$139.00 \times 5 =$
- **D** $$139.00 \div 5 =$

42

1 2 3 4 5 6 7 8 9

If these tiles were put into a hat, what is the probability that you would pick an odd number on the first try?

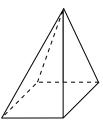
- $\mathbf{F} = \frac{5}{6}$
- $G = \frac{5}{9}$
- $\mathbf{H} = \frac{1}{2}$
- $\int \frac{5}{4}$



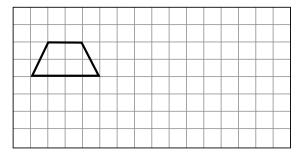
- How many students scored 90 or above?
 - **A** 8
 - **B** 10
 - **C** 18
 - **D** 48

- The number of students who scored 100 is 3 greater than the number of students who scored
 - **F** below 70
 - **G** 70 79
 - **H** 80 89
 - J 90 99
- What fraction of all the 6th graders scored 80-89 on the test?
 - **A** $\frac{1}{5}$
 - **B** $\frac{1}{3}$
 - $\mathbf{C} = \frac{1}{2}$
 - **D** $\frac{4}{5}$

How many edges does this pyramid have?



- **F** 5
- **G** 7
- **H** 8
- **J** 9
- What is the area of the figure below?



- **A** $5\frac{1}{2}$ square units
- **B** 6 square units
- **C** $6\frac{1}{2}$ square units
- **D** 7 square units

Which of the shapes below appear to be congruent?

P:



Q:



R:



S:



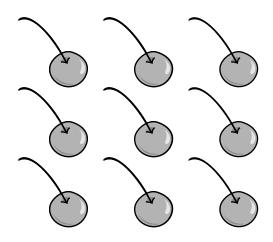
T:



- **F** P and Q
- **G** P and R
- **H** P and S
- **J** P and T

29

9 cherries weigh the same amount as 1 apple.



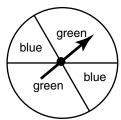
Which of the following sets will also weight the same amount?

- **A** 1 cherry and 8 apples
- **B** 10 cherries and 1 apple
- C 18 cherries and 2 apples
- **D** 18 cherries and 1 apple

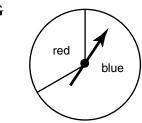
50

Mica spun the arrow on each spinner 12 times. On which spinner would she most reasonably expect to spin "blue" most often?

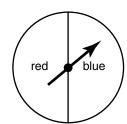
F



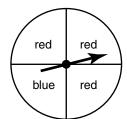
G



H



J



What is the average of 7, 8, and 18?

F 10

G 11

H 15

J 33

Which of the following numbers is divisible by both 3 and 4?

A 6

B 8

C 12

D 16

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?

F 85¢

G 74¢

H 64¢

J 38¢

31

- A 7 4
- B 7 8
- c 4 9
- D 2 4

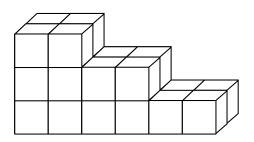
56

This is what happens when you reflect the letter G.



One of the letters below does not change when it is reflected. Which one is it?

- F S
- G P
- н Н
- J L



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

- **A**
- B _____
- C
- D

ANSWER SHEET

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

34.

(F)

(G)

 \oplus

 \bigcirc

(K)