

※ You can receive 1.5 points each for problems number 1 to 30.

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In problems 1-2, solve each question. Then add together all the digits. (For example, if the answer is 209, then write down the final answer as  $2+0+9=11$ .)

1.

$$\begin{array}{r} 67 \\ \times 56 \\ \hline \end{array}$$

2.

$$\begin{array}{r} 478 \\ \times 73 \\ \hline \end{array}$$

In problems 3-19, solve each question. Then add the quotient and the remainder. (For example, if the quotient is 5 and the remainder is 0, then the final answer is  $5+0=5$ . If the quotient is 12 and the remainder is 8, then the final answer is  $12+8=20$ .)

3.

$$4 \overline{) 62}$$

4.

$$8 \overline{) 94}$$

5.

$$6 \overline{) 85}$$

6.

$$3 \overline{) 89}$$

7.

$$6 \overline{)468}$$

10.

$$8 \overline{)4079}$$

8.

$$3 \overline{)353}$$

11.

$$26 \overline{)231}$$

9.

$$5 \overline{)849}$$

12.

$$29 \overline{)624}$$

13.

$$37 \overline{) 974}$$

14.

$$53 \overline{) 736}$$

15.

$$84 \overline{) 644}$$

16.

$$26 \overline{) 6847}$$

17.

$$72 \overline{) 7890}$$

18.

$$96 \overline{) 8385}$$

19.

$$53 \overline{) 38623}$$

In problems 20-23, calculate the answer.

20.  $(11 - (19 + 9) \div 7) \times 3$

21.  $8 + 4 \times 9 \div (13 - 7)$

22.  $17 - (25 + 47) \div (2 \times (12 - 3))$

23.  $(68 - 32) \div 4 + (28 - (7 + 5) - 9) \times 4$

In problems 24-26, solve each question as a mixed number in its simplest form. Then write the numerator. (For example, if the answer is  $2\frac{13}{8}$ , make

$3\frac{5}{8}$  and write the final answer as 5.)

24.  $5\frac{7}{9} + \left(6 - 5\frac{5}{9}\right)$

$$25. 6\frac{1}{5} - \left(6\frac{4}{5} - 4\frac{2}{5}\right)$$

$$26. 5\frac{2}{7} - 2\frac{6}{7} + 1\frac{5}{7}$$

In problems 27-28, solve each question. Then write the decimal part as your answer. (For example, if the answer is 18.2 or 18.20, then write the final answer as 2. If the answer is 2.54 or 2.054, then write the final answer as 54.)

$$27. \begin{array}{r} 5.472 \\ + 3.75 \\ \hline \end{array}$$

$$28. \begin{array}{r} 7.37 \\ - 2.679 \\ \hline \end{array}$$

In problems 29-30, solve each question into its simplest form. Then add the numerator and the denominator. (For example, if the answer is  $\frac{2}{3}$ , then write the final answer as  $2 + 3 = 5$ .)

$$29. \frac{38}{57}$$

$$30. \frac{96}{112}$$

※ You can receive 2.0 points each for problems number 31 to 40.

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**31.** Chris gave 26 bags filled with candy to his friends. If he put 32 pieces of candy in each bag, how many pieces of candy did he give altogether?

\_\_\_\_\_ pieces of candy

**32.** You have 264L of gasoline. If you put the gasoline equally into 12 cars, how much gasoline would be put in each car?

\_\_\_\_\_ L

**33.** Kate wants to pack 197 paper flowers into boxes that each of them contains 20 paper flowers. Find the number of boxes and the number of paper flowers left over. Add these two number together to make your answer.

\_\_\_\_\_

**34.** A model car travels 1 km 825 m in 25 minutes. How many meters does the model car travel each minute?

\_\_\_\_\_ m

**35.** One child can make 6 paper flowers in one hour. How many hours will it take 8 children to make 288 paper flowers?

\_\_\_\_\_ hours

**36.** The weight of ten pears in a basket was 1000 g including the weight of the basket. When 6 pears were added, the scale read 1,570 g. If all the pears have the same weight, what is the weight of each pear?

\_\_\_\_\_ g

**37.** James walked for 4680 seconds and Jane walked for 2 hours and 5 minutes. Whose walking time was longer? Write their time in minutes.

\_\_\_\_\_ minutes

38. George studied mathematics for  $1\frac{2}{7}$  hours and read a book for  $2\frac{5}{7}$  hours.

How much longer did George read a book than study mathematics? Write down the sum of the denominator and numerator of this mixed number.

(For example, if the answer is  $4\frac{2}{3}$ , write down as  $3+2=5$ .)

\_\_\_\_\_

39. Paul put 2.78 kg of sugar in a bottle that weighs 1.22 kg. What is the total weight of the sugar and bottle?

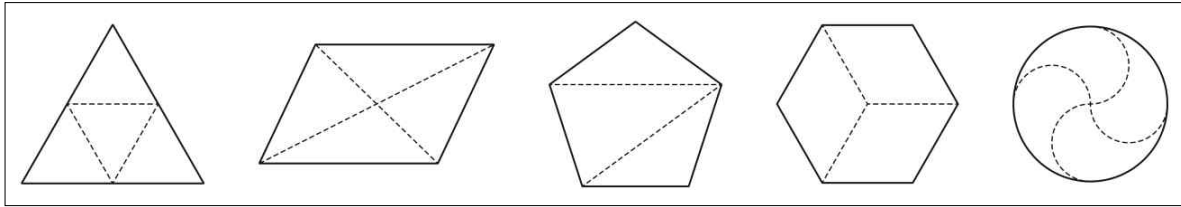
\_\_\_\_\_ kg

40. Wesley has a rectangular shaped bed with perimeter of 580 cm. If the length of the bed is 210 cm, what is the width of the bed?

\_\_\_\_\_ cm



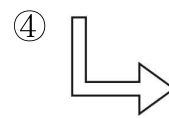
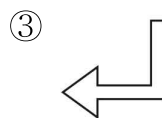
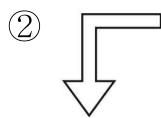
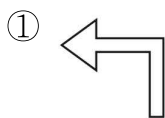
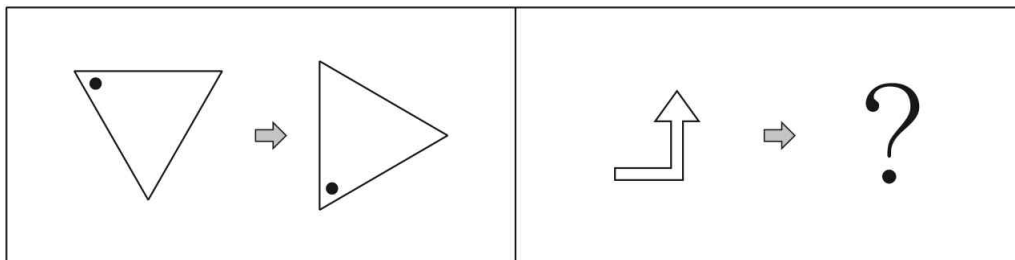
41. When you cut the following shapes along the dotted lines, how many would produce pieces that are all the same shape and size? [2.3 points]



Answer : \_\_\_\_\_

42. Look at the related figures and find the one that belongs in the “?”.

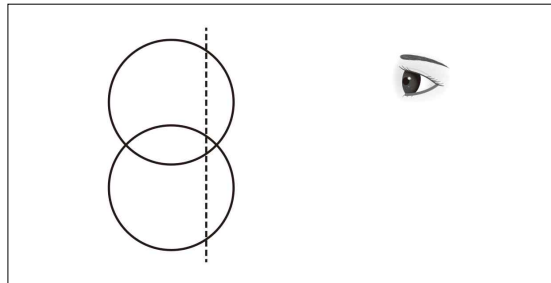
[2.3 points]



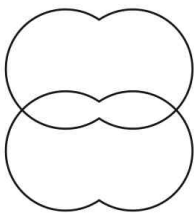
Answer : \_\_\_\_\_

43. Find the shape you would see if a mirror is placed on the dotted line?

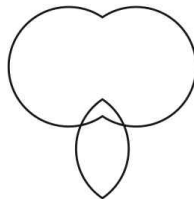
[3.3 points]



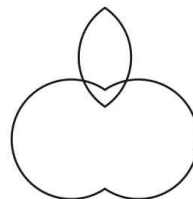
①



②



③



④



Answer : \_\_\_\_\_

44. A part of a calendar page is shown below. What is the date of the Saturday that has a remainder of 0 when it is divided by 5? [3.3 points]

Sun	Mon	Tue	Wed	Thur	Fri	Sat
						1
2	3					

Answer : \_\_\_\_\_

45. If the numbers in each row are in a certain mathematical relationship, 'Yes' is written as the Decision. If the numbers do not follow the same rule, 'No' is written as the Decision. Find the total number of 'Yes' you would write in the empty brackets ( ). [3.3 points]

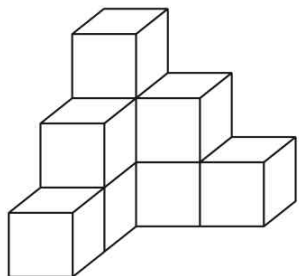
A	B	C	Decision
1	2	1	Yes
2	3	3	( )
3	4	5	Yes
4	1	10	( )
5	6	9	Yes
6	7	14	No
7	8	19	( )
8	6	18	( )
9	10	17	Yes

Answer : \_\_\_\_\_

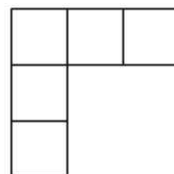
46. Write the difference between the greatest 3-digit number and the smallest 3-digit number you can make using three of these numbers: 0, 1, 2, and 4. [3.3 points]

Answer : \_\_\_\_\_

47. You painted the entire surface of the following block, including its surface on the bottom. How many painted faces are there? [4.3 points]



[Bottom view]



Answer : \_\_\_\_\_

48. Find the value in the ones place of the number you will get after multiplying 7 by itself 40 times. [4.3 points]

$$7 \times 7 \times \dots \times 7$$

└──────────┬──────────┘  
40 times

Answer : \_\_\_\_\_

49. There are four cards (A, B, C, D) below. Tom and Mina play a game using these cards. First Tom thinks of a number, and writes 'Yes' for each card if the number is on that card, and 'No' if the number is not on the card. After that, Mina knows the number that Tom is thinking of. Find the sum of  $\diamond$  and  $\bullet$  which are the two numbers that Tom was thinking of.

[4.3 points]

<table style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px 10px;">1</td><td style="padding: 2px 10px;">7</td></tr> <tr><td style="padding: 2px 10px;">2</td><td style="padding: 2px 10px;">8</td></tr> <tr><td style="padding: 2px 10px;">5</td><td style="padding: 2px 10px;">9</td></tr> </table>	1	7	2	8	5	9	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px 10px;">0</td><td style="padding: 2px 10px;">5</td></tr> <tr><td style="padding: 2px 10px;">2</td><td style="padding: 2px 10px;">6</td></tr> <tr><td style="padding: 2px 10px;">4</td><td style="padding: 2px 10px;">7</td></tr> </table>	0	5	2	6	4	7	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px 10px;">2</td><td style="padding: 2px 10px;">6</td></tr> <tr><td style="padding: 2px 10px;">3</td><td style="padding: 2px 10px;">8</td></tr> <tr><td style="padding: 2px 10px;">5</td><td style="padding: 2px 10px;">9</td></tr> </table>	2	6	3	8	5	9	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px 10px;">0</td><td style="padding: 2px 10px;">4</td></tr> <tr><td style="padding: 2px 10px;">1</td><td style="padding: 2px 10px;">5</td></tr> <tr><td style="padding: 2px 10px;">3</td><td style="padding: 2px 10px;">9</td></tr> </table>	0	4	1	5	3	9
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A	B	C	D																								

<Decision>

number	A	B	C	D
$\diamond$	Yes	Yes	No	No
$\bullet$	Yes	No	Yes	No

Answer : \_\_\_\_\_

50. 11 and 202 are symmetric numbers, which read the same forwards and backwards. How many symmetric numbers greater than 10 can you make using the number cards shown below? [4.3 points]



Answer : \_\_\_\_\_