

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

In problems 1-2, solve each question.

1.

$$\begin{array}{r} 78 \\ \times 59 \\ \hline \end{array}$$

2.

$$\begin{array}{r} 288 \\ \times 62 \\ \hline \end{array}$$

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.

$$4 \overline{) 71}$$

4.

$$6 \overline{) 84}$$

5.

$$7 \overline{) 95}$$

6.

$$3 \overline{) 83}$$

7.

$$8 \overline{) 526}$$

8.

$$6 \overline{) 674}$$

11.

$$24 \overline{) 198}$$

9.

$$4 \overline{) 559}$$

12.

$$17 \overline{) 409}$$

10.

$$6 \overline{) 4289}$$

13.

$$36 \overline{) 523}$$

14.

$$64 \overline{) 825}$$

17.

$$62 \overline{) 7076}$$

15.

$$83 \overline{) 998}$$

18.

$$94 \overline{) 7511}$$

16.

$$37 \overline{) 6430}$$

19.

$$37 \overline{) 26591}$$

In problems 20-23, calculate the answer.

20. $((48 + 8) \div 7 - 3) \times 7$

21. $12 + 8 \times (15 - 9) \div 4$

22. $27 - (54 + 27) \div (3 \times (8 - 5))$

23. $(42 - 24) \div 2 + (23 - (5 + 6) - 9) \times 5$

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. $4\frac{5}{9} + \left(7 - 4\frac{4}{9}\right)$

$$25. \ 5\frac{5}{7} - \left(3\frac{1}{7} - 1\frac{5}{7}\right)$$

$$26. \ 5\frac{2}{11} - 3\frac{5}{11} + 3\frac{7}{11}$$

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.)

$$27. \quad \begin{array}{r} 5.476 \\ + 3.74 \\ \hline \end{array}$$

$$28. \quad \begin{array}{r} 9.48 \\ - 2.782 \\ \hline \end{array}$$

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 $2 + 3 = 5$.)

$$29. \ \frac{52}{65}$$

$$30. \ \frac{56}{126}$$

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

- 31.** There are some boxes, each containing 24 milk cartons. How many milk cartons are in 18 of these boxes?

_____ cartons

- 32.** Grace has 112 chocolates. She gives them to 7 children equally. How many chocolates will each child receive?

_____ chocolates

- 33.** 1080 works of art will be exhibited at the art festival. 45 works of art can be displayed in one room. At least how many rooms are needed to display all the works of art?

_____ rooms

- 34.** Elisha is going to put 94 eggs in some baskets. One basket can hold 12 eggs. At least how many baskets does she need to hold all the eggs?

_____ baskets

- 35.** The ribbon needed to tie one gift box is 38 cm long. At most, how many gift boxes can be tied with a roll of 250 cm long ribbon?

_____ gift boxes

- 36.** Jack reads 4 books in 5 days. How many books can he read in one complete year? (A year is 365 days.)

_____ books

- 37.** There is a rectangular shaped floor with a width 14 m and a length of 18 m. Amy wants to fill this floor with square tiles which have 2 m sides. How many tiles does she need in total to fill this floor?

_____ tiles

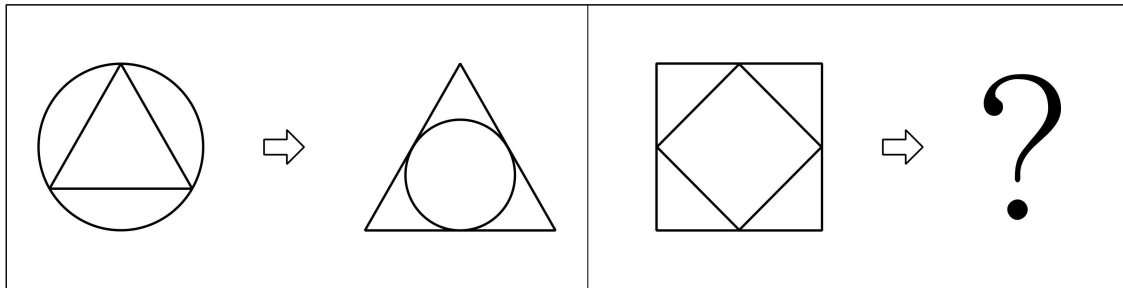
- 38.** Watson's classroom blackboard has a rectangular shape with a perimeter of 720 cm. If the length of the blackboard is 210 cm, what is the width of the blackboard?

_____ cm

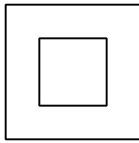
39. Jason studied for $1\frac{7}{9}$ hours in the morning and $2\frac{4}{9}$ hours in the afternoon. How many hours did he study today? If the answer is $A\frac{C}{B}$ hours, write the value of $A+B+C$. (Here B and C are mutually prime and $B>C$.)
- _____

40. 12.6 kg of flour was divided equally into 6 bags. If one of these bags containing flour weighs 3.223 kg in total, what is the weight of a bag containing no flour? Write three digits of the decimal part.
- _____ kg

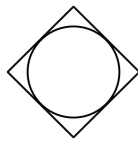
41. Look at the related figures and find the one that belongs in the “?”.
[2.3 points]



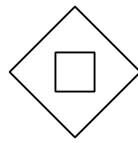
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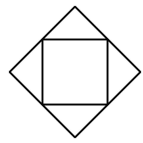
②



③



④



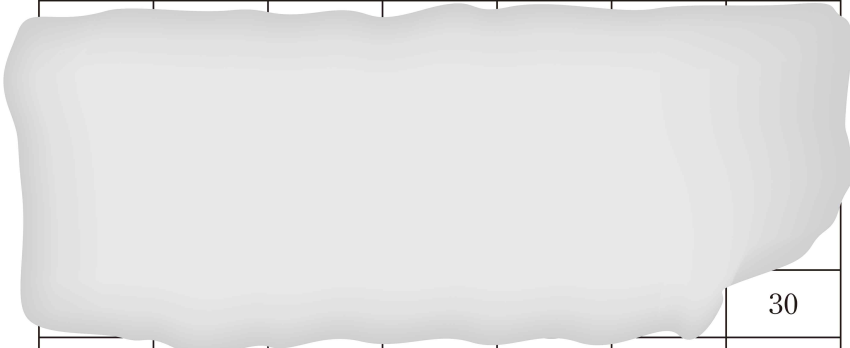
Answer : _____

42. Find the value of the formula you would see if a mirror is placed on the dotted line. [2.3 points]

$$\text{eye} \quad 108 + 81$$

Answer : _____

43. In the calendar below, what date is the third Friday? [3.3 points]

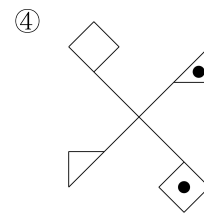
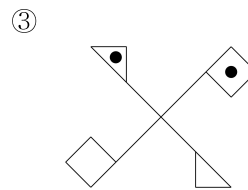
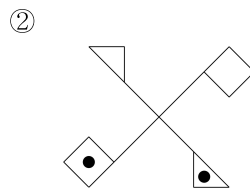
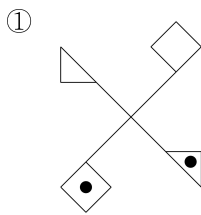
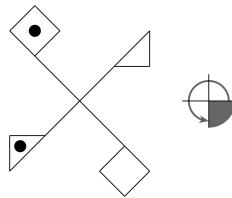
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						
31						30

Answer : _____

44. After removing any one digit from the number 123, we can get 3 different numbers: 12, 13, and 23. If you remove any one digit of the 4-digit number 1333, how many different 3-digit numbers can you get? [3.3 points]

Answer : _____

45. Which figure would be the result of rotating the given figure in the direction of the arrow? [3.3 points]

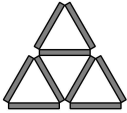
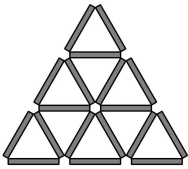


Answer : _____

46. A number is called symmetric if it is read the same forwards and backwards. How many symmetric numbers are greater than 10 and less than 300? [3.3 points]

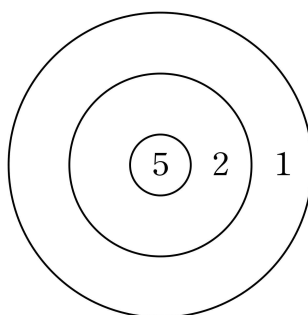
Answer : _____

47. In the following figures, sticks are arranged according to a certain rule. How many sticks should be arranged in the fourth figure? [4.3 points]

			
3	9	18	

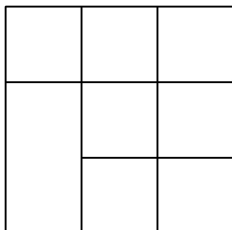
Answer : _____ sticks

48. Emma shot 3 arrows and all of them hit the target. What is the fourth highest score that Emma can get? [4.3 points]



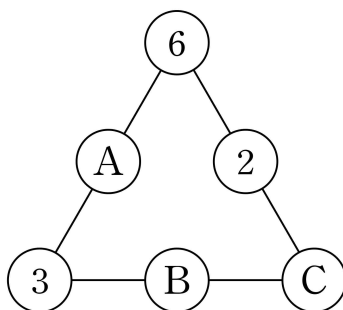
Answer : _____

- 49.** In the following figure how many large and small squares can you find in total? [4.3 points]



Answer : _____

- 50.** The sum of each line in the triangle should be the same. The numbers in the triangle are all different and less than 9. If you put the correct numbers in A, B and C, what is the value of $A + B + C$? [4.3 points]



Answer : _____