

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

In problems 1-6, 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.
$$\begin{array}{r} 36 \\ \times 4 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 79 \\ \times 8 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 45 \\ \times 37 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 87 \\ \times 54 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 279 \\ \times 65 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 924 \\ \times 425 \\ \hline \end{array}$$

In problems 7-23, solve each question. Then add the quotient and the remainder. (For example, if the quotient is 5 and the remainder is 0, then write the final answer as $5 + 0 = 5$.)

7.

$$6 \overline{) 56}$$

8.

$$7 \overline{) 79}$$

9.

$$6 \overline{) 86}$$

10.

$$8 \overline{) 92}$$

11.

$$3 \overline{) 91}$$

12.

$$5 \overline{) 89}$$

13.

$$4 \overline{) 54}$$

16.

$$8 \overline{) 97}$$

14.

$$6 \overline{) 74}$$

17.

$$2 \overline{) 99}$$

15.

$$3 \overline{) 64}$$

18.

$$4 \overline{) 906}$$

19.

$$7 \overline{) 867}$$

20.

$$8 \overline{) 5796}$$

21.

$$26 \overline{) 407}$$

22.

$$18 \overline{) 678}$$

23.

$$34 \overline{) 975}$$

In problems 24-26, calculate the answer.

24. $5 + 4 \times 6 - 72 \div 8$

25. $76 - 14 \times 4 + 48 \div 6$

26. $72 \div (8 + (21 - 17) \times 4)$

In problems 27-28, 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.)

27. $3\frac{11}{15} + 5\frac{8}{15}$

28. $7\frac{2}{7} - 3\frac{5}{7}$

In problems 29-30, 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.)

29.
$$\begin{array}{r} 6.74 \\ + 2.7 \\ \hline \end{array}$$

30.
$$\begin{array}{r} 8.2 \\ - 2.94 \\ \hline \end{array}$$

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

31. There are 29 students in each classroom. How many students are there in 8 classrooms?

_____ students

32. At Steve's store, there are 27 boxes of oranges. If there are 32 oranges in each box, how many oranges are there at Steve's store?

_____ oranges

33. Joy wants to make trucks using some blocks. He needs 8 blocks to make one truck. If Joy has 96 blocks, how many trucks can he make with them?

_____ trucks

34. 43 basketballs needed to be put into boxes. If you were to put 5 balls into each box, how many balls will be left-over? (You must use as many boxes as possible but each box must be full.)

_____ balls

35. There are 207 sheets of colored paper. If 9 students divide these sheets equally, how many sheets would each students have?

_____ sheets

36. Susan has 287 marbles and wants to put them into bottles. If she puts 30 marbles into each bottle and fills as many bottles as possible, how many marbles will be left-over?

_____ marbles

37. 5 boys and 4 girls divided 72 notebooks between them equally. How many notebooks did each person get?

_____ notebooks

38. There is a rectangular shaped paper with a width of 12 cm and a length of 20 cm. Thomas wants to cut this paper into square pieces with 4 cm sides. If all the paper is used, how many squares can Thomas make?

_____ squares

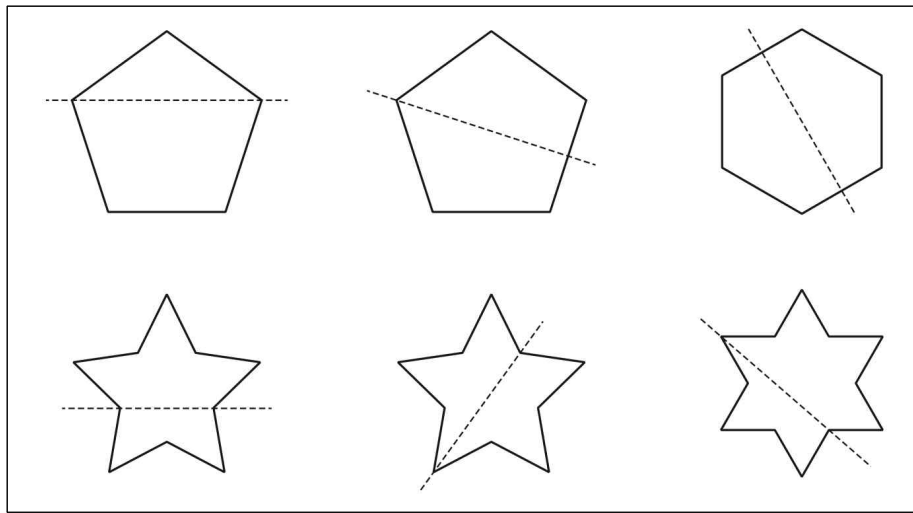
39. Jeff studied mathematics for $1\frac{2}{5}$ hours this morning and $2\frac{3}{5}$ hours in this afternoon. In total, how many hours did Jeff study mathematics today?

_____ hours

40. There is a rectangular shaped room in Mike's house with a perimeter of 32 m. If the length of the room is 7 m, what is the width of the room?

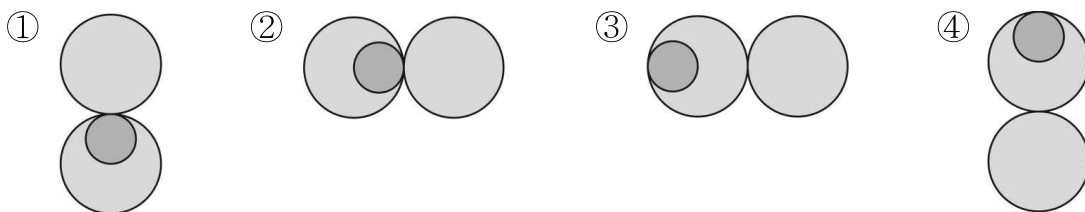
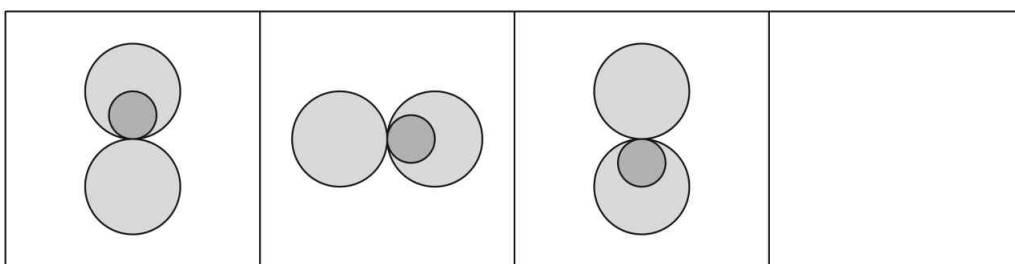
_____ m

41. How many figures below will produce 2 parts that are the same size and shape when cut along the dotted line? [2.3 points]



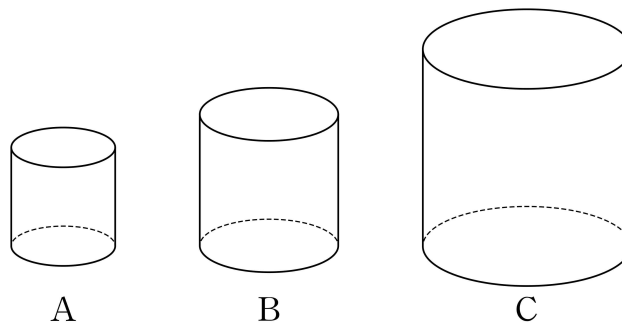
Answer : _____

42. Which of the following figures should go in the blank box to complete the pattern? [2.3 points]



Answer : _____

43. There are three containers A, B, and C. If the full amount of water in A is poured into B three times, B will become full. If the full amount of water in B is poured into C four times, C will become full. In order to completely fill container C, how many times should the full amount of water in A be poured into C? [3.3 points]

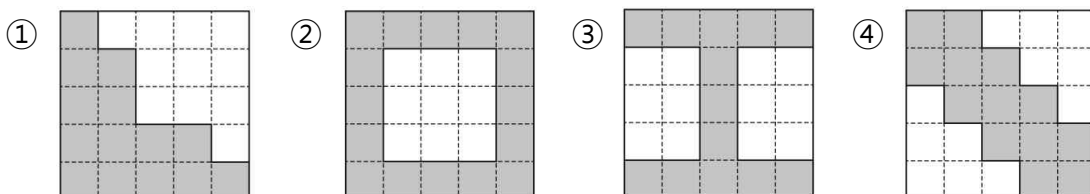
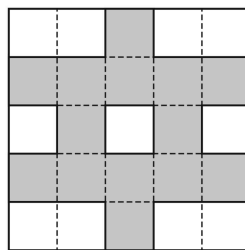


Answer : _____

44. Which figure has the same number of shaded squares as the example? [3.3 points]






[3.3 points]

[Example]



Answer : _____

45. A tribe used to write numbers as seen in the following pictures. Write down the number in A. [3.3 points]

				
3	7	11	A	17

Answer : _____

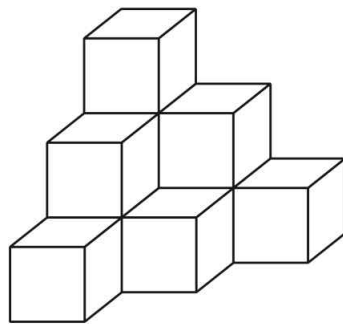
46. If the numbers in each row are related in a certain way, 'Yes' is written as the Decision. If the numbers in each row are not related in that way, 'No' is written as the Decision. What is the missing number in the blank? [3.3 points]

A	B	C	Decision
1	2	3	No
2	5	9	Yes
3	7	13	Yes
4	8	<input type="checkbox"/>	Yes
5	7	19	No

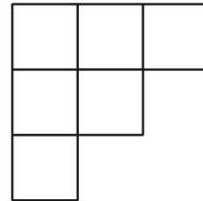
Answer : _____

47. How many cubes were used to form the following structure?

[4.3 points]

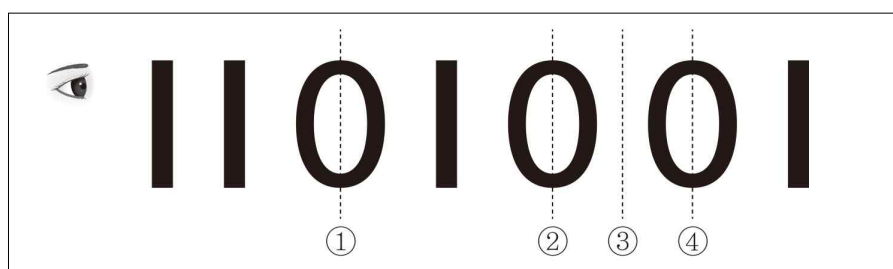


[Bottom view]



Answer : _____


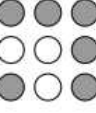

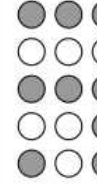
48. Where do you need to place a mirror in order to see one more number 1 than 0? [4.3 points]



Answer : _____

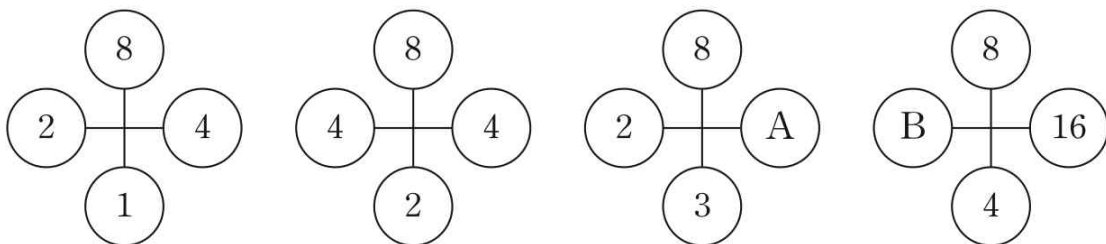
49. Gray and white stones are arranged in the following pattern. What is the difference between the number of gray and white stones in Step 6?

[4.3 points]

Steps	1	2	3	4	...
					...

Answer : _____

50. Find the sum of A and B, when the sets of numbers in the following figures follow a common mathematical pattern. [4.3 points]



Answer : _____