※ You will receive 1.5 points for each correct answer for problems 1 to 30.

1. Calculate the answer.

$6\overline{)84}$

Ⓐ 14 …… 0
Ⓑ 14 …… 3
Ⓒ 14 …… 5
Ⓓ 15 …… 1
Ⓔ 15 …… 4

2. Calculate the answer.

$8\overline{)97}$

Ⓐ 11 …… 3
Ⓑ 11 …… 5
Ⓒ 11 …… 6
Ⓓ 12 …… 1
Ⓔ 12 …… 3

3. Calculate the answer.

$26\overline{)173}$

Ⓐ 5 …… 16
Ⓑ 5 …… 21
Ⓒ 6 …… 5
Ⓓ 6 …… 11
Ⓔ 6 …… 17

4. Calculate the answer.

$37\overline{)356}$

Ⓐ 9 …… 36
Ⓑ 9 …… 23
Ⓒ 9 …… 17
Ⓓ 8 …… 29
Ⓔ 8 …… 16

5. Calculate the answer.

$$84\overline{)721}$$

Ⓐ 7 …… 57
Ⓑ 7 …… 79
Ⓒ 8 …… 21
Ⓓ 8 …… 39
Ⓔ 8 …… 49

6. Calculate the answer.

$$58\overline{)3980}$$

Ⓐ 64 …… 48
Ⓑ 66 …… 12
Ⓒ 68 …… 36
Ⓓ 70 …… 20
Ⓔ 72 …… 34

7. Calculate the answer.

$$45 \div (3 + 6) \times 7$$

Ⓐ 35
Ⓑ 38
Ⓒ 40
Ⓓ 42
Ⓔ 45

8. Calculate the answer.

$$31 - 8 \times 6 \div 4$$

Ⓐ 17
Ⓑ 18
Ⓒ 19
Ⓓ 20
Ⓔ 21

9. Calculate the answer.

$$(6 + 7) \times 4 - 24 \div 4$$

Ⓐ 43
Ⓑ 44
Ⓒ 45
Ⓓ 46
Ⓔ 47

10. Calculate the answer.

$$8 + 36 \div 6 \times 4 - 7$$

Ⓐ 24
Ⓑ 25
Ⓒ 26
Ⓓ 27
Ⓔ 28

11. Calculate the answer.

$$(65 - 37) \div 7 + 3 \times 8$$

Ⓐ 26
Ⓑ 27
Ⓒ 28
Ⓓ 29
Ⓔ 30

12. Calculate the answer.

$$7 \times 8 - 2 \times 9 + 42 \div 6 - 27$$

Ⓐ 18
Ⓑ 19
Ⓒ 20
Ⓓ 21
Ⓔ 22

13. Calculate the answer.

$$(84 - 19) \div ((11 - 4) \times 4 - 15)$$

Ⓐ 8
Ⓑ 7
Ⓒ 6
Ⓓ 5
Ⓔ 4

14. Calculate the answer.

$$\begin{array}{rrr} & 8\,\text{km} & 246\,\text{m} \\ - & 6\,\text{km} & 530\,\text{m} \\ \hline \end{array}$$

Ⓐ 1 km 716 m
Ⓑ 1 km 776 m
Ⓒ 1 km 834 m
Ⓓ 2 km 36 m
Ⓔ 2 km 174 m

15. Calculate the answer.

$$\begin{array}{rrr} & 4\,\text{kg} & 860\,\text{g} \\ + & 8\,\text{kg} & 270\,\text{g} \\ \hline \end{array}$$

Ⓐ 12 kg 790 g
Ⓑ 12 kg 830 g
Ⓒ 12 kg 990 g
Ⓓ 13 kg 30 g
Ⓔ 13 kg 130 g

16. Calculate the answer.

$$\begin{array}{rrr} & 15\,\text{L} & 120\,\text{mL} \\ - & 8\,\text{L} & 690\,\text{mL} \\ \hline \end{array}$$

Ⓐ 6 L 210 mL
Ⓑ 6 L 430 mL
Ⓒ 6 L 810 mL
Ⓓ 7 L 330 mL
Ⓔ 7 L 710 mL

17. Express the following time in hours, minutes, and seconds.

6804 seconds

Ⓐ 1 hr 49 min 54 sec
Ⓑ 1 hr 53 min 24 sec
Ⓒ 1 hr 55 min 34 sec
Ⓓ 1 hr 58 min 14 sec
Ⓔ 2 hr 1 min 14 sec

18. Calculate the answer.

$$\begin{array}{rrrr} & 6\text{ hr} & 48\text{ min} & 28\text{ sec} \\ + & 2\text{ hr} & 17\text{ min} & 43\text{ sec} \\ \hline \end{array}$$

Ⓐ 8 hr 55 min 1 sec
Ⓑ 8 hr 56 min 11 sec
Ⓒ 9 hr 6 min 11 sec
Ⓓ 9 hr 11 min 21 sec
Ⓔ 9 hr 15 min 1 sec

19. Calculate the answer.

$$\begin{array}{rrrr} & 8\text{ hr} & 20\text{ min} & 12\text{ sec} \\ - & 6\text{ hr} & 20\text{ min} & 14\text{ sec} \\ \hline \end{array}$$

Ⓐ 1 hr 40 min 26 sec
Ⓑ 1 hr 46 min 38 sec
Ⓒ 1 hr 52 min 28 sec
Ⓓ 1 hr 59 min 58 sec
Ⓔ 2 hr 1 min 58 sec

20. Solve the fraction into its simplest form.

$$\frac{32}{56}$$

Ⓐ $\frac{3}{8}$
Ⓑ $\frac{3}{7}$
Ⓒ $\frac{4}{9}$
Ⓓ $\frac{4}{7}$
Ⓔ $\frac{7}{9}$

21. Solve the fraction into its simplest form.

$$\frac{75}{135}$$

Ⓐ $\frac{5}{7}$
Ⓑ $\frac{5}{8}$
Ⓒ $\frac{5}{9}$
Ⓓ $\frac{5}{11}$
Ⓔ $\frac{5}{13}$

22. Calculate the answer.

$$5\frac{1}{9} - 3\frac{8}{9}$$

Ⓐ $2\frac{7}{9}$

Ⓑ $2\frac{2}{9}$

Ⓒ $1\frac{7}{9}$

Ⓓ $1\frac{4}{9}$

Ⓔ $1\frac{2}{9}$

23. Calculate the answer.

$$3\frac{11}{17} + \left(4\frac{5}{17} - 2\frac{9}{17}\right)$$

Ⓐ $5\frac{7}{17}$

Ⓑ $5\frac{12}{17}$

Ⓒ $5\frac{16}{17}$

Ⓓ $6\frac{3}{17}$

Ⓔ $6\frac{11}{17}$

24. Calculate the answer.

$$5\frac{9}{10} + 2\frac{13}{18}$$

Ⓐ $7\frac{31}{90}$

Ⓑ $7\frac{28}{45}$

Ⓒ $8\frac{5}{18}$

Ⓓ $8\frac{28}{45}$

Ⓔ $8\frac{59}{90}$

25. Calculate the answer.

$$7\frac{3}{8} - 4\frac{5}{12}$$

Ⓐ $2\frac{5}{6}$

Ⓑ $2\frac{11}{12}$

Ⓒ $2\frac{23}{24}$

Ⓓ $3\frac{3}{4}$

Ⓔ $3\frac{19}{24}$

26. Calculate the answer.

$$3\frac{3}{4} \times 2\frac{2}{9}$$

Ⓐ $8\frac{2}{3}$

Ⓑ $8\frac{1}{3}$

Ⓒ $8\frac{1}{6}$

Ⓓ $6\frac{1}{3}$

Ⓔ $6\frac{1}{6}$

27. Calculate the answer.

$$2\frac{4}{7} \div 4.2 \times \frac{14}{15}$$

Ⓐ $\frac{3}{5}$

Ⓑ $\frac{4}{5}$

Ⓒ $\frac{3}{7}$

Ⓓ $\frac{4}{7}$

Ⓔ $\frac{5}{7}$

28. Calculate the answer.

$$13.5 - 5.87$$

Ⓐ 6.73

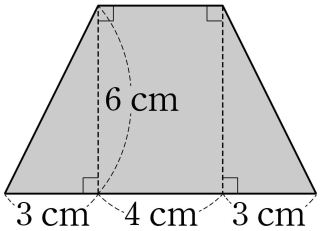
Ⓑ 6.97

Ⓒ 7.23

Ⓓ 7.47

Ⓔ 7.63

29. Find the area of the trapezoid.



Ⓐ 38 cm^2

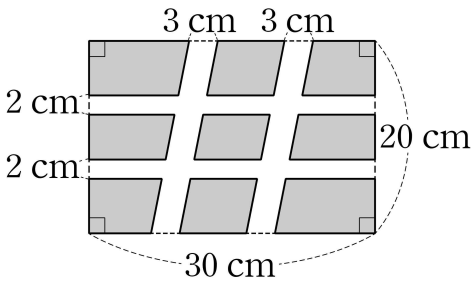
Ⓑ 40 cm^2

Ⓒ 42 cm^2

Ⓓ 44 cm^2

Ⓔ 46 cm^2

30. Find the area of the shaded section. (All widths are constant.)



Ⓐ 380 cm^2

Ⓑ 384 cm^2

Ⓒ 388 cm^2

Ⓓ 392 cm^2

Ⓔ 396 cm^2

※ You will receive 2.0 points for each correct answer for problems 31 to 40.

31. Yelena wants to arrange 96 books on some shelves. Eight books can fit on one shelf. How many shelves does she need?

_____ shelves

32. There are 835 sheets of paper. If each student gets 24 sheets of paper, how many sheets of paper are left over?

_____ sheets of paper

33. Zayden deposited $26 in a bank for the first time last month. This month, he deposited $14 more than he did last month. If he then took half of the money out of the bank, how much money did he take out?

$ _____

34. Bianca woke up at 7 a.m., had breakfast for $\frac{5}{12}$ hour and washed and dressed for 1620 seconds. Afterwards, she traveled to school by bus and arrived at 8 : 20 a.m. How many minutes did she take from home to school?

_____ minutes

35. There is 1.25L of juice. Aiden drank 0.47L. How many mL of juice is left?

_____ mL

36. Flory visited the beach for $1\frac{2}{7}$ weeks this month, and visited the mountains for $\frac{6}{7}$ weeks. How many days did Flory travel this month?

_____ days

37. What is the area of a triangle that has a base of 28cm and a height of 34cm?

_____ cm^2

38. Eric is trying to evenly divide 162 pencils, 144 erasers, and 108 notebooks among as many students as possible. How many students can Eric give these school supplies to?

_____ students

39. Corbin weighs $27\frac{2}{5}$ kg and Daphne weighs $26\frac{3}{4}$ kg. How many grams heavier is Corbin than Daphne?

_____ g

40. There is a rectangle with an area of $12\frac{5}{6}\text{cm}^2$. If the width of this rectangle is $3\frac{2}{3}$ cm, how many centimeters is the length of this rectangle? If the answer is $\text{A}\frac{\text{C}}{\text{B}}$ cm, find the value of $\text{A}+\text{B}+\text{C}$. (Note that $\frac{\text{C}}{\text{B}}$ is the simplest fraction.)

_____

41. Pedro, Queen, Raymond, and Sarah are lined up in this order. The distance between Pedro and Raymond is 18m, the distance between Pedro and Sarah is 25m, and the distance between Queen and Sarah is 14m. What is the distance between Queen and Raymond? [2.3 points]

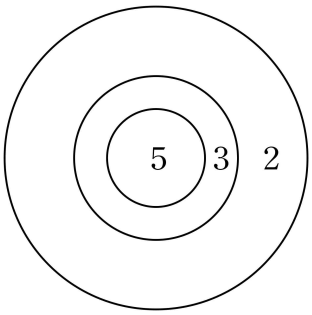
Answer : _____ m

42. When making 3-digit numbers with the 4 number cards shown below, how many different 3-digit numbers can be made? [3.3 points]

0	1	2	3

Answer : _____

43. Ilisa shot three arrows and they all hit the target below. How many different total scores can she get? [4.3 points]



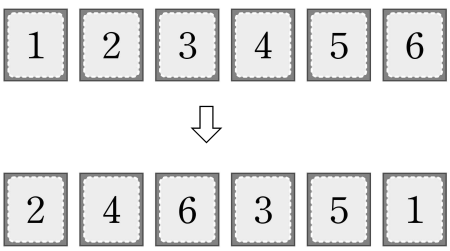
Answer : _____

44. In the following card sequence, you are allowed to swap cards that are next to each other.

Example

(2 times)

What is the minimum number of swaps needed to achieve the following card order? [4.3 points]



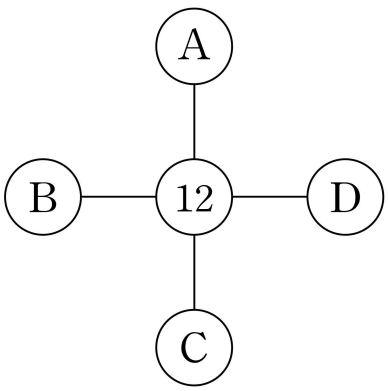
Answer : _____ times

45. A, B, and C represent three different numbers. Find the value of A+B+C. [4.3 points]

$$\begin{array}{r} \square A \square A \\ + \quad \square B \square A \\ \hline \square C \square 5 \square B \end{array}$$

Answer : _____

46. All the five circles below have a number different from each other. If the product of each line is equal to 144, find the sum of A, B, C, and D. [3.3 points]

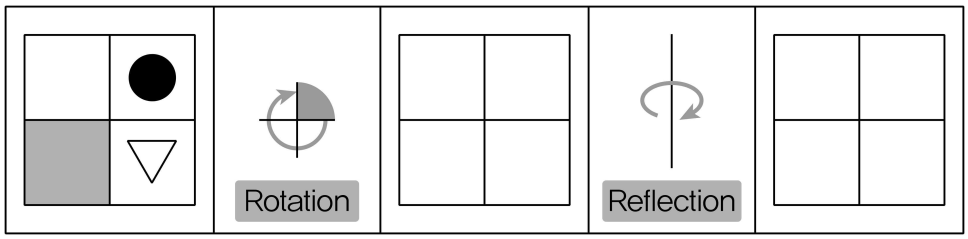


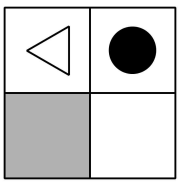
Answer : _____

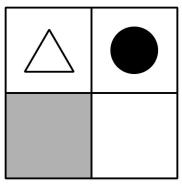
47. Frankie, Gemma, and Hudson shared 24 pieces of candy unequally. Hudson then gave half of the pieces of candy he had to Frankie, and Gemma gave two pieces of candy to Hudson. Then, the three people had the same number of pieces of candy. When the candy was first shared, how many pieces of candy did Hudson have? [3.3 points]

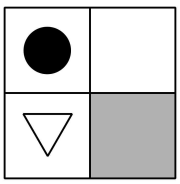
Answer : _____ pieces of candy

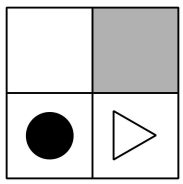
48. When the figure below follows the instructions given in order, which figure will be in the last column as a result? [2.3 points]



Ⓐ 

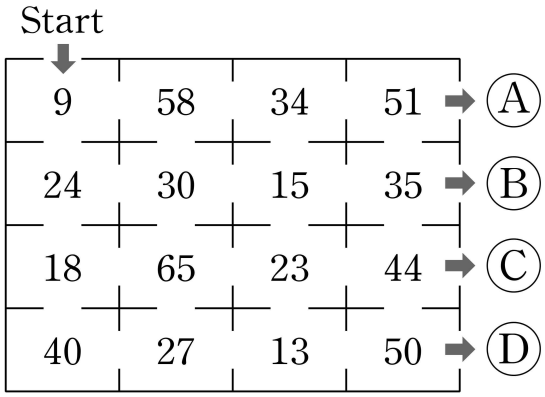
Ⓑ 

Ⓒ 

Ⓓ 

Answer : _____

49. In the maze below, follow the squares with remainder 2 when the numbers are divided by 7. Which exit will you use, Ⓐ-Ⓓ? [3.3 points]



Answer : _____

50. There is a cubic box with an edge length of 15cm. If you start at each vertex and want to attach stickers to every edge at 5cm intervals, how many stickers will you need in total? (The width of the sticker is not considered.) [4.3 points]

Ⓐ 24 Ⓑ 28 Ⓒ 32 Ⓓ 36

Answer : _____