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

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

1. $32-3\times4+6\div2$

2. $(90-54)\div3\times(30-(5+8))$

In 3-7, write the decimal part after solving each question. (For example, if the answer is 18.2 or 18.20, then write as 2. If the answer is 2.54 or 2.054, then write as 54.)

3.
$$\begin{array}{r} 5.6 \\ +\ 3.75 \\ \hline \end{array}$$

4. $3.85+14.2$

5.
$$\begin{array}{r} 5.7 \\ -\ 3.35 \\ \hline \end{array}$$

6. $26.5-1.35$

7.
$$\begin{array}{r} 2.35 \\ \times\ \ 1.7 \\ \hline \end{array}$$

In 8-10, write the greatest common factor for each set of numbers.

8.

12, 15

GCF : _____

9.

60, 132

GCF : _____

10.

28, 42, 70

GCF : _____

In 11-13, write the least common multiple for each set of numbers.

11.

9, 21

LCM : _____

12.

36, 45

LCM : _____

13.

18, 35, 42

LCM : _____

In 14-16, add the numerator and the denominator after solving each question as the simplest form. (For example, if the answer is $\frac{2}{3}$, then write as $2+3=5$.)

14. $\frac{36}{81}$

15. $\frac{52}{78}$

16. $\frac{62}{93}$

In 17-25, write the numerator after calculating each question as the simplest form of a proper fraction or a mixed number. (For example, if the answer is $3\frac{10}{6}$, make $4\frac{2}{3}$ and write 2.)

17. $8\frac{1}{7}-\left(3\frac{3}{7}+1\frac{6}{7}\right)$

18. $7+2\frac{9}{13}-8$

19. $3\frac{1}{6}+4\frac{4}{21}$

20. $2\frac{5}{6}+6\frac{3}{4}$

21. $2\frac{2}{5}-1\frac{5}{6}$

22. $3\frac{3}{5}\times 2\frac{4}{9}$

23. $1\frac{19}{35}\div 2\frac{4}{7}$

24. $\frac{3}{4}\times 2.4\times 4\frac{1}{6}$

25. $2\frac{8}{9}\div 1.8\times \frac{9}{13}$

In 26, after calculating the quotient up to the hundredths place, write the decimal part of the sum of the quotient and the remainder.
(For example, if the quotient is 2.56 and the remainder is 0.004, make $2.56+0.004=2.564$, and write 564.)

26.

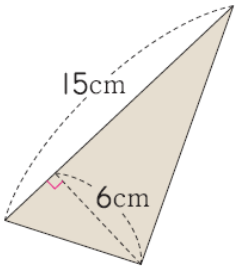
$$9.2\overline{)4.0\ 3}$$

In 27-28, solve each equation.

27. $(x\times 3)\div 1\frac{1}{3}=15\frac{3}{4}$

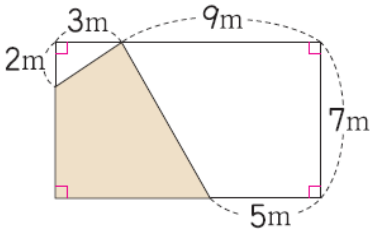
28. $(x-15)\div \frac{5}{8}=48$

29. Find the area of the shaded triangle.



$\square$ cm^2

30. Find the area of the shaded section.



$\square$ m^2

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

31. A sheet of paper is 72cm wide, and 32cm long. How many 8cm long squares can you cut from this paper?

_____ squares

32. A rectangular pool has a length of 8m and an area of 144m^2. What is the width of the pool?

_____ m

33. Susan has a box that contains apples and pears. It weighs 5.26kg. When the apples are taken out of the box, it weighs 1.95kg. What is the weight of the apples? (Write down only decimal part. For example, if the answer is 6.75 write down as 75.)

_____

34. I weigh 42.6kg. My brother weighs 2.87kg more than I do. What is my brother's weight? (Write down only decimal part. For example, if the answer is 6.75 write down as 75.)

_____

35. Buses bound for Vancouver leave Seattle every 5 minutes. Buses bound for San Francisco leave every 7 minutes. Buses bound for Boise leave every 20 minutes. The first buses leave for Vancouver, San Francisco, and Boise at 7 A.M. What time is it when the three buses leave together for the second time? (Write down only B part.)

A : B A.M.

36. The water fountain is $\frac{9}{14}$km away from Jane's house, and the park is $\frac{11}{21}$km away from the fountain. How many km is it to the park from Jane's house, via the fountain? (Write down the sum of denominator and numerator of mixed number. For example, if the answer is $4\frac{2}{3}$, write down as $3+2=5$.)

37. Georgia went to her grandmother's house, which is $10\frac{4}{15}\mathrm{km}$ from her home. she took the bus for $9\frac{7}{9}\mathrm{km}$ and walked the rest of the way. How many km did she walk? (Write down the sum of denominator and numerator of mixed number. For example, if the answer is $4\frac{2}{3}$, write down as $3+2=5$.)

38. What is the area of a square that has a side of $2\frac{5}{8}\text{cm}$? (Write down the sum of denominator and numerator of mixed number. For example, if the answer is $4\frac{2}{3}$, write down as $3+2=5$.)

_____

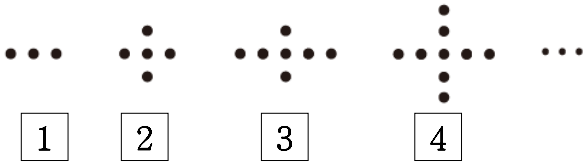
39. Terry's mother bought 5.9kg of fish at \$30 per kg. How much did she pay?

\$ _____

40. Jay's father gave him some money. He shared the money with his brother in the ratio of $7:4$. If Jay has \$56, how much does his brother have? (Assume that Jay got bigger portion of money.)

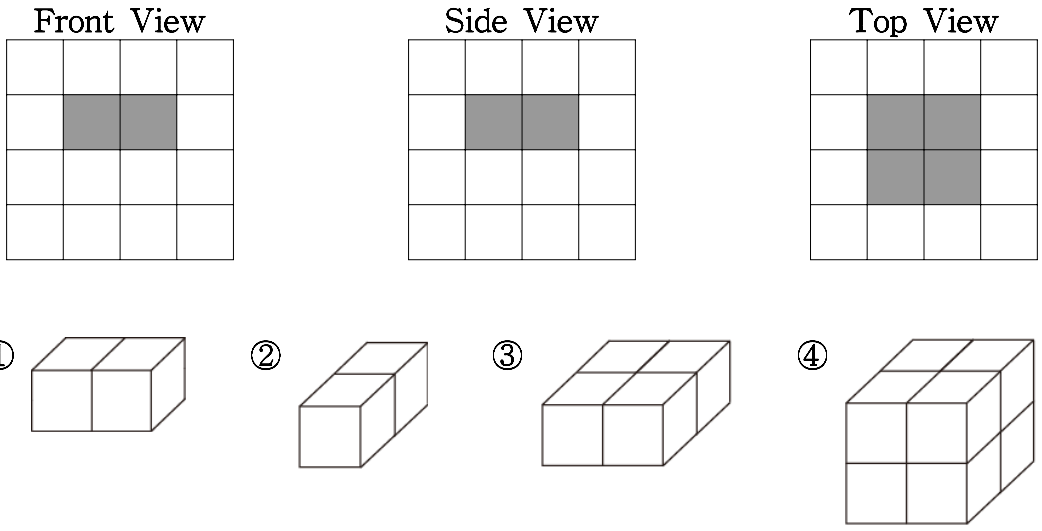
\$ _____

41. The picture below follows an increasing pattern and the figure numbers indicate the order. What figure number would have 21 dots (•)? [2.3 points]



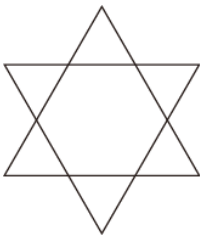
Answer : _____

42. The front, side, and top views of a block are given. Find the correct block. [2.3 points]



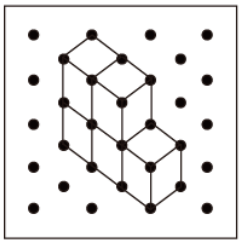
Answer : _____

43. If you draw a line of symmetry for figure below, how many are the lines of symmetry in total? [3.3 points]



Answer : _____ lines

44. Every exposed face of the block below is painted, including the bottom. When it is cut into pieces by the lines as shown in the picture, how many  faces are there that are painted? [3.3 points]



Answer : _____ faces

45. Jimmy used $\$40$ of his saving to buy a CD player and spent half of what was left on a magazine. He has $\$5$ left. How much money did Jimmy have before he bought the CD player and magazine? [3.3 points]

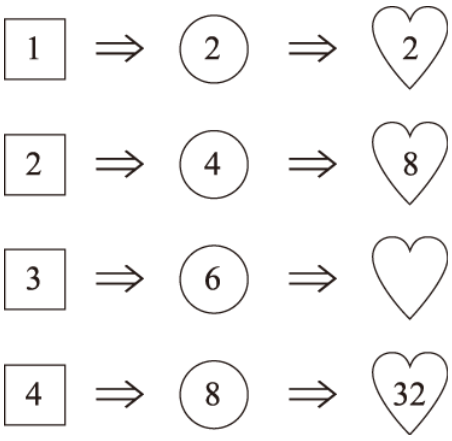
Answer : $\$$_____

46. A board has a uniform thickness. It takes 3 minutes to make 1 cut through the board. How long would it take to cut the board into 5 pieces? [3.3 points]

Answer : _____ min

47. Follow the pattern and find the the correct number in the blank space.

[4.3 points]

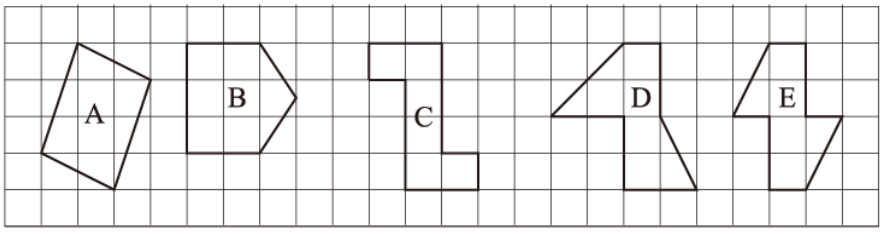


Answer : _____

48. How many 3-digit odd numbers can be made using the following number cards? Each card can only be used once. [4.3 points]

Answer : _____ 3-digit odd numbers

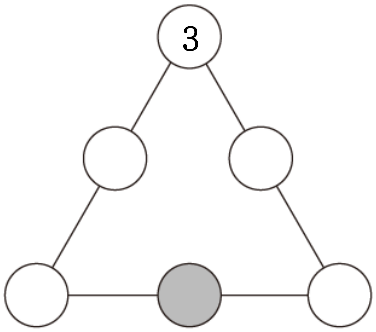
49. Look at the figures below and find the total number of the point-symmetrical figures. [4.3 points]



Answer : _____

50. Write each of the numbers from 1 to 6 once so that each side of the triangle has a sum of 10. Find the number that appears in the shaded ◯ below.

[4.3 points]



Answer : _____