X1 score

1 (A) If $7,410 \times 73 = 540,930$, which is correct?

(A) $0.741 \times 73 = 54.093$ (B) $7.41 \times 73 = 5409.3$

(C) $7.41 \times 7.3 = 540.93$ (D) $74.1 \times 7.3 = 54.093$

(E) $0.741 \times 0.73 = 0.054093$

X2 score

2 (B) If $P > Q > R > S$ and $P = 2\,\ell$, $S = 1.42\,\ell$, $R = 1{,}675\,m\ell$, then what is Q?

(A) $1{,}500\,m\ell$ (B) $17\,d\ell$ (C) $21\,d\ell$ (D) $1.6\,\ell$ (E) $2{,}015\,m\ell$

X3 score

3 (B) In one day, John is awake for 1 hour and 38 minutes more than he is asleep for. How long is John awake and asleep for?

(A) awake : 12 hours 48 minutes
asleep : 11 hours 12 minutes

(B) awake : 12 hours 49 minutes
asleep : 11 hours 11 minutes

(C) awake : 12 hours 50 minutes
asleep : 11 hours 10 minutes

(D) awake : 12 hours 51 minutes
asleep : 11 hours 9 minutes

(E) awake : 12 hours 52 minutes
asleep : 11 hours 8 minutes

X4 score

4 (D) Ian's family went biking on the weekend. Ian's dad biked 9 km and 407 m. Ian's mom biked 8,063 m. Ian's sister biked 8 km and 4 m. Ian biked 10,205 m. What's the difference between the longest and the shortest distance biked?

(A) 798 (B) 1,805 (C) 2,165 (D) 2,201 (E) 80,202 m

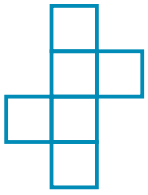
X5 score

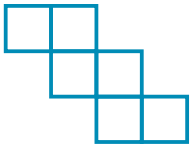
5 (E) The picture shows an isosceles triangle and a right triangle. Please find $\angle 1$.

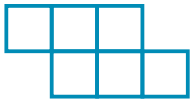
(A) 30° (B) 50° (C) 60° (D) 70° (E) 80°

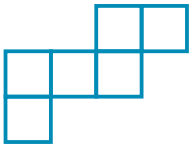
X6 score

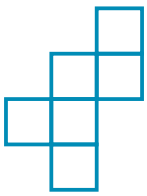
6 (C) Which of the following is not the expansion figure of a cube?

(A) 

(B) 

(C) 

(D) 

(E) 

X7 score

7 (D) Which of the following does **not** round to *18,000*?
(A) *17,649* rounded off to the thousands place
(B) *18,083* rounded down to the hundreds place
(C) *18,000* rounded up to the hundreds place
(D) *17,994* rounded off to the tens place
(E) *17,002* rounded up to the thousands place

X8 score

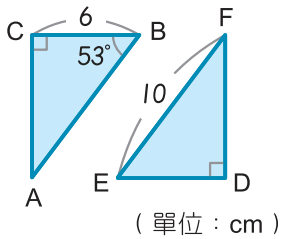
8 (C) A truck can deliver *145* boxes of drinks. There are *2,650* boxes of drinks. How many trips does it take the truck to deliver all the drinks?
(A) *17* (B) *18* (C) *19* (D) *20* (E) *21* trips

X9 score

9 (B) Which is **wrong** about quadrilaterals?
(A) If all the angles are right angles, it can be a rectangle or a square.
(B) If all sides are equal, it's a square.
(C) If there's only one parallel side, then it is a trapezoid.
(D) A parallelogram has two pairs of parallel sides.
(E) A rhombus has two parallel sides.

X10 score

10 (D) On the right are two congruent right triangles. Which of the following is **incorrect**?
(A) The corresponding edge of $\overline{AC}$ is $\overline{FD}$.
(B) The corresponding vertex of F is A.
(C) $\overline{AB}$ is *10* cm.
(D) Angle E is *37*°.
(E) $\overline{ED}$ is *6* cm.



(單位：cm)

X11 score

11 (C) Number A is made of *209* times of *0.1* and *80* times of *0.001*.
Number B is made of *1* ten, *110* times of *0.1* and *8* times of *0.001*.
Number C is made of *15* ones, *60* times of *0.1* and *8* times of *0.01*.
Rank A, B, and C.
(A) A = B = C (B) A > B > C (C) C > B > A
(D) B > C > A (E) A = B > C

X12 score

12 (E) Look at the pattern below. What's $10 \times x - y = ?$

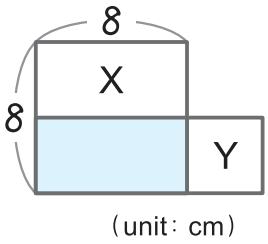
8, 3, 7, 6, 8, 3, 7, 6, 8, 3 ⋯⋯ The *29*th number is x.
2, 5, 3, 9, 1, 2, 5, 3, 9, 1, 2, 5, 3 ⋯⋯ The 53rd number is y.

(A) *28* (B) 54 (C) 55 (D) *71* (E) 77

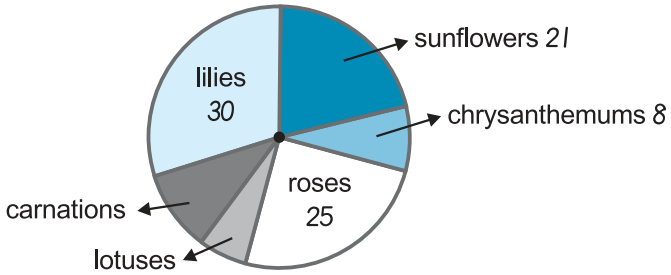
More questions are on the next page.

X13 score

13 (C) Look at the picture on the right. We overlap a square (with sides of 8 cm each) with a rectangle. The non-overlapping area, X, is 16 cm^2 more than the area of Y. What's the area of the rectangle?
(A) 24 (B) 32 (C) 48 (D) 56 (E) 64 cm^2



The pie chart on the right shows Anna's Floral Shop's total orders of flowers this month.
Use the chart to answer questions 14 ~ 15.



Pie Chart of Anna's Floral Shop's Flower Orders

X14 score

14 (A) The total number of flower orders is 100. If the number of carnations is $\frac{1}{3}$ of the number of lilies, how many lotuses were ordered?
(A) 6 (B) 7 (C) 8 (D) 9 (E) 10 lotuses

X15 score

15 (C) Carnations and roses together make what percentage of the entire order?
(A) 25% (B) 30% (C) 35% (D) 40% (E) 55%

X16 score

16 (E) 5 bars of the same chocolate weigh 42.75 g. 6 of the same cookies weigh 16.8 g. What's the difference in weight between 1 bar of chocolate and 1 cookie?
(A) 7.5 (B) 7.25 (C) 6.75 (D) 6.5 (E) 5.75 g

X17 score

17 (C) Which of the following is not equivalent to $\frac{210}{168}$?
(A) $\frac{105}{84}$ (B) $\frac{70}{56}$ (C) $\frac{52}{42}$ (D) $\frac{35}{28}$ (E) $\frac{30}{24}$

X18 score

18 (B) A and B are integers. A rounded up to the hundreds place is 24,900. B rounded off to the thousands place is 25,000. What's the difference between the maximum value of A and the minimum value of B?
(A) 399 (B) 400 (C) 449 (D) 500 (E) 599

X19 score

19 (C) 

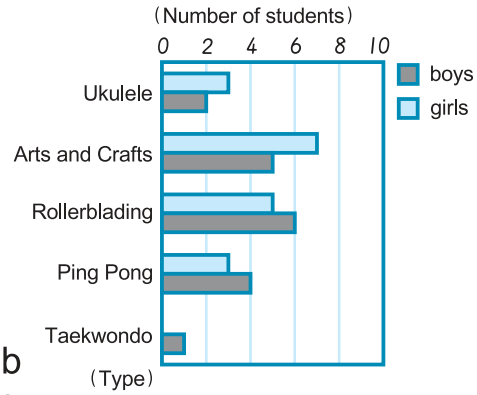
Diana bought a pair of  that costs $120 before the sale price, and also a dress that's $75.
How much did she pay altogether after the sale?
(A) 99 (B) 103 (C) 171 (D) 180 (E) 195 dollars

X20 score

20 (D) If ● + ○ + ◯ = 18, ⊕ + ○ + ◯ = 14, ⊕ + ● = 10, ○ − ◯ = 1, which of the following is correct?
(A) ● = 3 (B) ⊕ = 7 (C) ○ = 5 (D) ◯ = 5 (E) ○ = 7

X21 score

21 (C) The bar graph on the right shows the types of clubs Class 5A students have joined.
Which of the following is wrong ?
(A) There are 36 students in the entire class.
(B) Arts and Crafts Club has the greatest number of students.
(C) The number of boys in the Ukulele Club is the same as the number of boys in the Ping Pong Club.
(D) No girls joined the Taekwondo Club.
(E) The number of boys in the Rollerblading Club is 3 more than the number of girls in the Ukulele Club.



Types of Clubs Class 5A Students Join

X22 score

22 (E) The chocolate factory can produce 136 chocolates each minute.
The chocolates are packed into a bag of 25 chocolates each.
If the chocolate factory produces chocolates for 2 hours and 25 mins, and then the workers place them into bags, which of the following is correct?

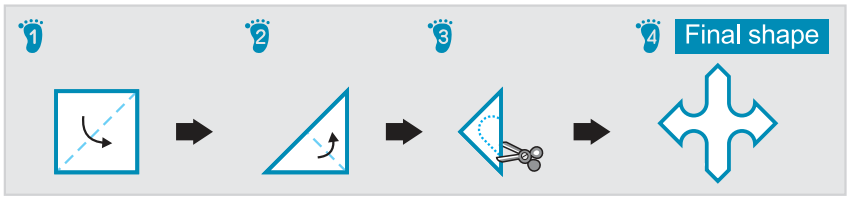
Hints 136 × 150 = 20,400, 25 × 788 = 19,700

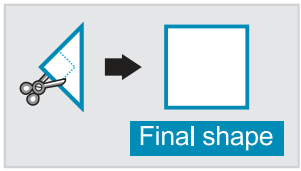
(A) 789 bags were packed, with 5 chocolates left
(B) 788 bags were packed, with 10 chocolates left
(C) 787 bags were packed, with 20 chocolates left
(D) They can pack 788 bags if there were 5 more chocolates
(E) After packing 788 bags, they only need 5 more chocolates to pack another bag.

More questions are on the next page.

X23 score

23 (B) After folding and cutting the paper using the instructions below, what shape will it be?





(A) 
(B) 
(C) 
(D) 
(E) 

X24 score

24 (A) Eva's company earned *352* million dollars last year. If the company earned *174* million dollars less this year, compared to last year, how much money did they earn altogether for the two years?

(A) Five hundred and thirty million dollars.
(B) Five hundred and three million dollars.
(C) Five hundred and twenty-six million dollars.
(D) Three hundred and fifty-two million dollars.
(E) One hundred and seventy-eight million dollars.

X25 score

25 (C) Jeff spent *177* hours travelling around Taiwan. If he returns to the starting point of his trip on October 5 at 6 am, when did he leave for his trip?

(A) Sep 26, 9 pm (B) Sep 26, 9 am (C) Sep 27, 9 pm
(D) Sep 27, 9 am (E) Sep 28, 9 pm

X26 score

26 (B) Melissa cut a *13*-m ribbon into *8* equal pieces. She used two pieces to wrap a gift, and 5 pieces to wrap a package. What's the difference in length between the ribbon used to wrap a gift and the ribbon used to wrap a package?

(A) *8.125* (B) *4.875* (C) *2.315* (D) *1.825* (E) *1.625* m

X27 score

27 (D) Subtract 16 from the numerator of $\frac{17}{85}$. How much must we subtract from the denominator of the same fraction so that the fraction remains equivalent?

(A) 52 (B) 68 (C) 69 (D) 80 (E) 84

X28 score

28 (A) Find $\frac{y-1}{x}$ with the hints:

$73x$ is a 3-digit number. It is a multiple of 2 and a multiple of 9.
$61y$ is a 3-digit number. It is a multiple of 3 and a multiple of 4.

(A) $\frac{1}{8}$ (B) $\frac{3}{8}$ (C) $\frac{5}{8}$ (D) $\frac{1}{9}$ (E) $\frac{5}{9}$

X29 score

29 (E)

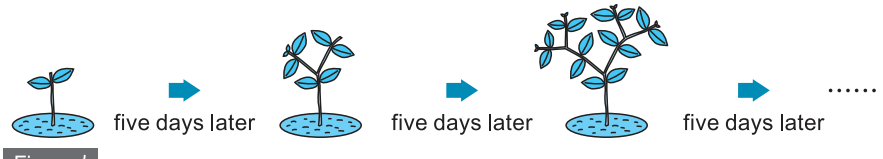


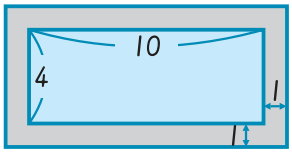
Figure 1

A plant starts off with two leaves as seen in the picture above. Then every 5 days, 2 more branches grow and sprout into two leaves. After 25 days, how many leaves will there be?

(A) 16 (B) 32 (C) 48 (D) 96 (E) 126 leaves

X30 score

30 (C) Mr. Wang has a rectangular garden as shown on the right. The grey part is the sidewalk. Mr. Wang plants flowers equal distances apart, on both sides of the sidewalk, including the corners of the sidewalk. If he plants 32 flowers in total, how long is the distance between every two flowers?



(unit: m)

(A) 1 m (B) 1.5 m (C) 2 m (D) 3 m (E) 4 m