

01

What is the value of $102 + 103 + 104 + 105 + 106$?

- A) 515
- B) 520
- C) 525
- D) 530

02

$2843 + 1674 + \blacktriangle = 6566$. What is the value of $\blacktriangle$?

- A) 2046
- B) 2049
- C) 2050
- D) 2056

03

21, 28, 35, $\blacktriangle$, $\blacksquare$, 56, ...

In the number pattern above, what is the sum of the numbers represented by the symbols $\blacktriangle$ and $\blacksquare$?

- A) 89
- B) 90
- C) 91
- D) 92

04

Ashley has 59 dollars in her money box and takes out 8 dollars each day.

How much money remains after 6 days?

- A) 11
- B) 10
- C) 9
- D) 8

05

Cows	Sheep	Goats	Chickens
2570	4100	$\blacksquare$	$\blacktriangle$

The table shows the numbers of animals on a farm.

- The number of goats is 850 less than the number of cows.
- The number of sheep is 2150 less than the number of chickens.

What is the total number of animals on the farm?

- A) 14 620
- B) 14 630
- C) 14 640
- D) 14 650

06

Between which two integers does the improper fraction $\frac{41}{13}$ lie?

- A) 2 and 3
- B) 3 and 4
- C) 4 and 5
- D) 5 and 6

07

A train leaves at 10:47 A.M. and the journey takes 95 minutes. At what time does it arrive?

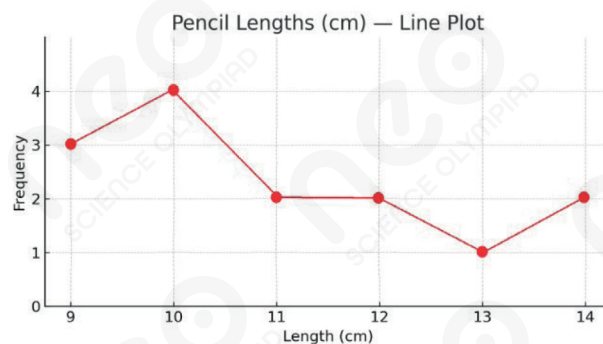
- A) 12:22 P.M.
- B) 12:12 P.M.
- C) 01:22 P.M.
- D) 11:22 A.M.

08

Each side of a square is doubled. What happens to its area?

- A) It remains the same
- B) It doubles
- C) It triples
- D) It quadruples

09



The line plot shows pencil lengths (cm) and how many pencils have each length. What is the arithmetic mean length?

- A) 10.5 cm
- B) 11 cm
- C) 11.5 cm
- D) 12 cm

10

In a cafeteria, after selling 5 sandwiches, there are 95 dollars in the drawer. After selling 25 sandwiches in total, there are 275 dollars.

How much money was in the drawer before selling any sandwiches?

- A) 50
- B) 55
- C) 60
- D) 65

11

8670 kg of sugar will be packed into sacks. Each sack holds 52 kg. What is the minimum number of sacks required?

- A) 167
- B) 168
- C) 169
- D) 170

12

What is the written form of "eight less than the number read as 'three million five'"?

- A) 2 999 993
- B) 2 999 995
- C) 2 999 997
- D) 2 999 999

13

$$\begin{array}{r} \text{●}43 \\ - \text{●}2\text{●}6 \\ \hline 117 \end{array}$$

Sophia subtracted two 3-digit numbers. Then she hid two cells. What is the sum of the two digits in the hidden cells?

- A) 5
- B) 6
- C) 7
- D) 8

14

Three siblings aged 5, 8 and 9 share some money in proportion to their ages. If the 8-year-old receives \$32, what is the total amount shared?

- A) \$84
- B) \$88
- C) \$92
- D) \$96

15

Flour (cups)	Sugar (cups)
6	4
12	8
a	10
24	b

The table above shows flour–sugar ratio in a recipe.

What is $a + b$?

- A) 31
- B) 32
- C) 33
- D) 34

16



Nadia finds an old calendar page showing 'September 1, 2013, Sunday.' She notices that her niece was born in the same year and same month on the 20th.

What day of the week was her niece born?

- A) Tuesday
- B) Wednesday
- C) Thursday
- D) Friday

17

Which of the following words has only horizontal symmetry but not vertical symmetry?

- A) IHI
- B) ZOZ
- C) OXO
- D) EHE

18

$$\sqrt{2} + \sqrt{8} + \sqrt{18} + \sqrt{32} + \sqrt{50} + \sqrt{72} = ?$$

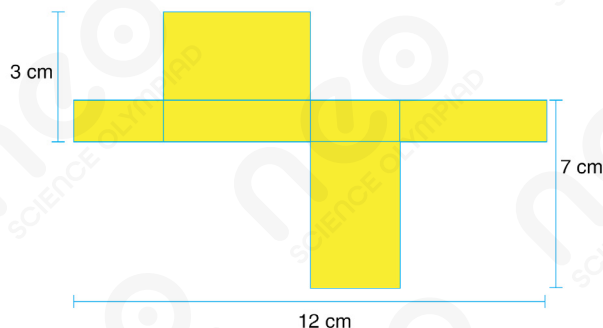
- A) $\sqrt{182}$ B) $20\sqrt{2}$ C) $21\sqrt{2}$ D) $22\sqrt{2}$

19

Given the polynomials $P(x) = x^5 + x^4 - x^2 + 2$ and $Q(x) = x^5 + 3x^4 - 4x^2 + 2x + 12$, what is the degree of the polynomial $(P(x) \cdot Q(x))$?

- A) 9 B) 10 C) 11 D) 12

20



The diagram shows a net of a rectangular box with some lengths given.

What is the volume of the box?

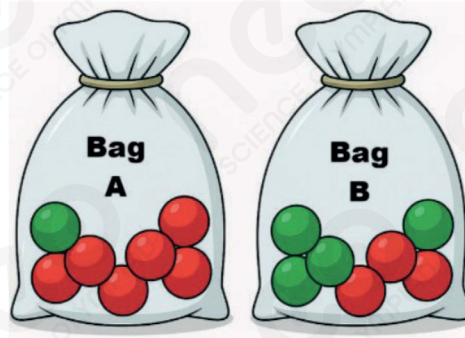
- A) 10 cm^3
B) 12 cm^3
C) 15 cm^3
D) 18 cm^3

21

Four souvenirs cost €6, €8, €11, €14.
Ava buys some of them and her total is €25.
Which souvenir did Ava definitely buy?



22



Bag A contains 6 red balls and 1 green ball.
Bag B contains 3 red balls and 4 green balls.
If balls are drawn from the two bags in any order, what is the minimum number of balls that must be drawn to guarantee at least one green ball?

- A) 6
- B) 8
- C) 9
- D) 10

23



A structure is built by gluing 4 cubes in a straight vertical stack. The whole structure is painted pink on the outside, including the bottom. How many faces stay unpainted?

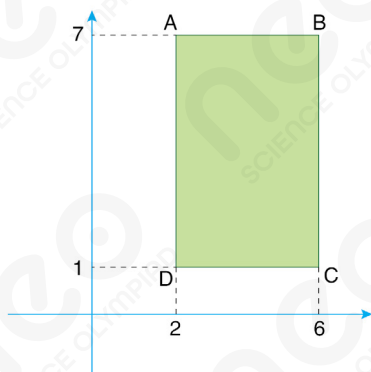
- A) 2
- B) 4
- C) 6
- D) 8

24

Evaluate $[(-4)^2 - 3^2] \div (-7) + 2$

- A) -1
- B) 0
- C) 1
- D) 2

25



What is the slope of the line that passes through the points D and B?

A) $\frac{3}{2}$

B) $\frac{2}{3}$

C) $-\frac{3}{2}$

D) $-\frac{2}{3}$

Answer Key

1	B
2	B
3	C
4	A
5	C
6	B
7	A
8	D
9	B
10	A
11	A
12	C
13	A
14	B
15	A
16	D
17	D
18	C
19	B
20	A
21	C
22	D
23	C
24	C
25	A