P5 ISMC Sample Questions

Section A:

Each of the questions 1 to 2 carries 2 marks.
Each of the questions 3 to 4 carries 3 marks.

1.

Find the value of 1 – 2 + 3 – 4 + …. + 2021 – 2022 + 2023

A. 1011
B. 1012
C. 2022
D. 2023
E. 2024

2.

When $\frac{2}{3}$ is subtracted from a fraction, then multiplied by 4, the answer is the same original fraction. What is the fraction?

A. $\frac{5}{6}$

B. $\frac{2}{9}$

C. $\frac{8}{9}$

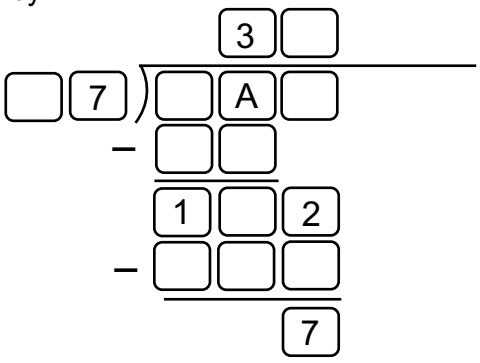
D. $\frac{5}{12}$

E. $\frac{7}{12}$

3.

What digit is represented by A?

A. 9
B. 8
C. 7
D. 6
E. 5

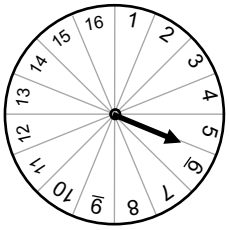


4.
The average of eight different numbers greater than zero is 45.
These numbers are rearranged into two groups of four numbers.
The average of the first group of four numbers is 57.
What is the largest possible number in the second group?

A. 360
B. 228
C. 132
D. 126
E. 33

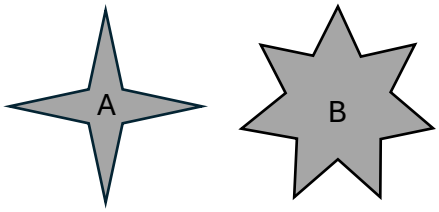
Section B
Each of the questions 5 to 7 carries 4 marks.

5.
The circle shown is divided into 16 equal sectors.
The pointer is between sector 5 and 6.
In which sector will the pointer be after it rotates clockwise by 130°?



Sector _____

6.
Figure A is a 4-point star. It has 8 angles inside.
The sum of these 8 angles is 1080°
Figure B is a 7-point start. It has 14 angles inside.
What is the sum of its 14 angles?



_____ °

7.
What is the maximum number of packages each 22 cm by 15 cm by 10 cm that can be packed into a large carton box 5 m by 3 m by 4 m?

_____ packages

Section C

Each of the questions 8 to 9 carries 4 marks.
Each of the questions 10 to 12 carries 5 marks.

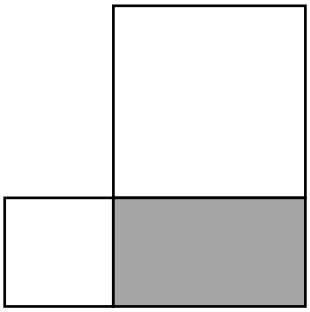
8.

There were 425 members in a club last year. This year the number of male members has reduced by 10% and the number of female members has reduced by 20%. There are as many male members as female members now.
How many female members from last year did not continue to be members?

_____ female

9.

The figure below shows a rectangle and 2 squares.
The perimeter of the shaded rectangle is 64 cm.
The ratio of the area of the small square to the area of the large square is 9 : 25.
What is the area of the shaded rectangle?



_____ cm^2

10.

In the triangle ABC, ∠ABC = 78°, AD = AF and CE = CF.
Find ∠DFE.

_____ °

11.

When the difference of a 3-digit number and 1 is divided by 8, the remainder is 7.
When the sum of the same number and 2 is divided by 12, the remainder is 2.
What is the smallest possible value of this 3-digit number?

12.

Ali and Zuri are laying bricks. If Ali works for 4 hours and Zuri works for 6 hours, they will lay a total of 196 bricks. If Ali works for 7 hours and Zuri works for 3 hours, they will lay a total of 208 bricks. How many bricks will Ali and Zuri lay together in an hour?

_____ bricks

P5 ISMC Sample Questions Answers

Section A:
Each of the questions 1 to 2 carries 2 marks.
Each of the questions 3 to 4 carries 3 marks.

1. B
2. C
3. E
4. D

Section B
Each of the questions 5 to 7 carries 4 marks.

5. Sector 11
6. 2160°
7. 18 000 packages

Section C
Each of the questions 8 to 9 carries 4 marks.
Each of the questions 10 to 12 carries 5 marks.

8. 45 female members
9. 240 cm^2
10. 51°
11. 120
12. 40 bricks