

TEST

AMO Grade 5 Mock Test Paper 4

QUESTIONS

SECTIONS

1. Section A MCQs - 15 Questions
2. Section B Integers - 10 Questions

Section 1 : Section A MCQs - 15 Questions

What is the value of

1 $(888 + 666 + 444 + 111) - (555 + 333 + 222 + 777)?$

☐ 111

☐ 222

☐ 333

☐ 444

☐ 555

Correct: +4 · Incorrect: -1

Ashley has a rectangle made out of paper that is 8 cm by 12 cm. She folds it in half twice, first vertically and then horizontally. The new rectangle looks just like the original rectangle but smaller. What is the area of the new smaller rectangle in square cm?

2

☐ 6

☐ 12

☐ 18

☐ 24

☐ 30

Correct: +4 · Incorrect: -1

3 What is twice the value of $9 + 7 \times 7 + 5 \times 5 + 3 \times 3 + 2$?

☐ 188

☐ 94

☐ 93

☐ 186

☐ 190

Correct: +4 · Incorrect: -1

4 Summer vacation lasts for 85 days. During summer vacation, what is the greatest number of Fridays that could occur?

☐ 12

☐ 13

☐ 15

☐ 18

☐ 20

Correct: +4 · Incorrect: -1

Find the sum of the following

5

$$117 + 104 + 91 + 78 + 65 + 52 + 39 + 26 + 13$$

☐ 130

☐ 65

☐ 150

☐ 600

☐ 585

Correct: +4 · Incorrect: -1

TOM's PIN code is a 5-digit number with all different digits. The thousands digit is twice the ten thousands digit; the hundreds digit is 50% more than the thousands digit; the tens digit is 1 more than the ten thousands digit; and the ones digit is 2 more than the tens digit. What is the value of $\frac{\text{Tom's PIN code}}{65}$?

6

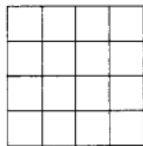
☐ 379

☐ 24635

- ☐ 6565
- ☐ 3790
- ☐ 24700

Correct: +4 · Incorrect: -1

Sixteen 1cm by 1cm tiles are arranged in 4 rows and 4 columns to form a single square as shown. The perimeter of the square is 16 cm. If the shape is cut into exactly two pieces along the edges of the tiles, what is the greatest total perimeter of the two pieces, in centimetres, that can be made?

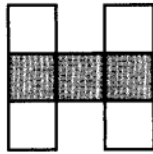


7

- ☐ 12
- ☐ 14
- ☐ 22
- ☐ 24
- ☐ 36

Correct: +4 · Incorrect: -1

In the figure, the whole numbers from 1 through 7 are to be placed, one per square. The sum of the numbers in the left column, the sum of the numbers in the right column, and the sum of the numbers in each diagonal are the same. What is the largest possible product of the numbers across the grey row?



8

- ☐ 18
- ☐ 30
- ☐ 210
- ☐ 42
- ☐ 120

Correct: +4 · Incorrect: -1

Tom can paint a classroom in 12 hours. Jerry can paint the same classroom in 4 hours. If they work together, each at their own rate, to paint this classroom, how many hours would they take?

9

- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6

☐ 8

Correct: +4 · Incorrect: -1

10 What's the greatest 3-digit number that is divisible by both 32 and 36?

☐ 988

☐ 888

☐ 864

☐ 998

☐ 846

Correct: +4 · Incorrect: -1

11 Ari, Barry and Carrie chose a number. Ari said the number was a multiple of 3, 5 and 11. Barry said the number was a multiple of 2 and 7. Carrie said the number had 4 digits, one of which was a 9, but none of which were 6. Find the last 3 digits of the number they chose.

☐ 924

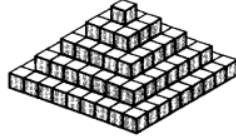
☐ 310

☐ 240

☐ 620

☐ 930

There are 165 unit cubes arranged in 5 square layers with no space between the cubes as shown. The layers are 1 by 1, 3 by 3, 5 by 5, 7 by 7, and 9 by 9. If a sixth layer is placed on the bottom of the arrangement following the pattern, how many unit cubes are completely surrounded by six other unit cubes?



12

☐ 83

☐ 74

☐ 84

☐ 49

☐ 35

Tiffany looked at a clock and realized that the number of hours that had passed since midnight was five times the number of hours remaining until noon. What time did the clock show 1 hour ago?

13

☐ 7.00

☐ 8.00

☐ 9.00

☐ 10.00

☐ 11.00

Correct: +4 · Incorrect: -1

-
In the multiplication $AB \times BA = A45B$, A and B represent different digits, AB and BA are 2-digit numbers and A45B is a 4-digit number. If AB is less than BA, what is the 2-digit number AB?

14

☐ 18

☐ 81

☐ 14

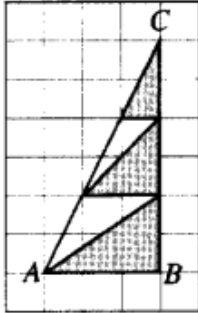
☐ 58

☐ 50

Correct: +4 · Incorrect: -1

If the area of the shaded part of the picture on the right is 18 cm^2 , find the area (in cm^2) of the triangle CAB ?

15



☐ 18

☐ 6

☐ 3

☐ 27

☐ 9

Correct: +4 · Incorrect: -1

Section 2 : Section B Integers - 10 Questions

In the following cryptarithm, each different letter represents a different digit in the 6-digit numbers. If B is not 0, find the last three digits of the smallest possible sum.
(For Example, if your answer is 12345, then write 345.)

16

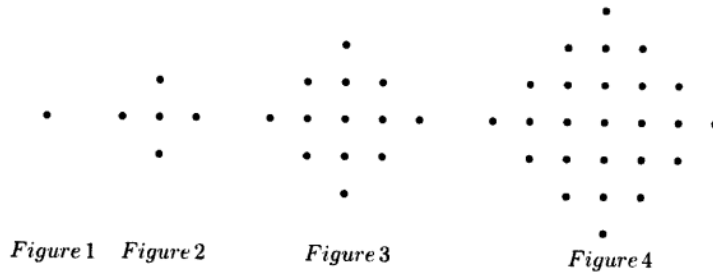
Correct: +5

Jethro is now 3 times as old as his son Hezekiah. Six years ago, Jethro was 4 times as old as his son Hezekiah was then. Find the sum of Jethro's and Hezekiah's present ages.

17

Correct: +5

Gerald likes to create patterns with dots. He created the following figures below. The first four figures are shown below. How many dots will the 16th figure contain?



18

Correct: +5

The product of k and 1980 is a square number. If k is a whole number, what is the least possible value of k ?

19

Correct: +5

In the cryptarithm shown, each letter represents a different digit. What is the least possible value of the three-digit number SUM? A cannot equal 0.

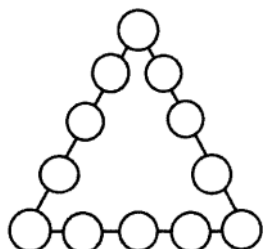
ADD
ADD
ADD
+ ADD
SUM

20

Correct: +5

Correct: +5

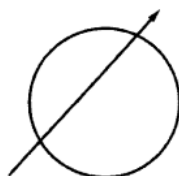
The numbers 1 through 12 are placed in the diagram, one in each circle so that the sum of the numbers along each line is the same. What is the largest possible value of this sum per line?



22

Correct: +5

The region inside the circle can be cut into two parts by drawing 1 line through it, as shown. If the circle is cut into 232 parts, then what is the least number of lines that must be drawn through the region?



23

Correct: +5

How many digits are there in the least multiple of 41 whose only digits are 1?

24

Correct: +5

In the cryptarithm shown, different letters represent different digits. If two letters are the same, they represent the same digit. What is the greatest value that GOO could be?

DUCK
+DUCK
GOOSE

25

Correct: +5

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ANSWERS

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2. Section B Integers - 10 Questions

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1 222

2 24

3 188

4 13

5 585

6 379

7 36

8 210

9 3

10 864