

Summer AMC 8- Workshop 4

This material is designed for use in the classroom to simulate a **Mock Exam**.

To ensure accurate evaluation results, please **DO NOT** allow children to preview or complete the corresponding exercises in advance.

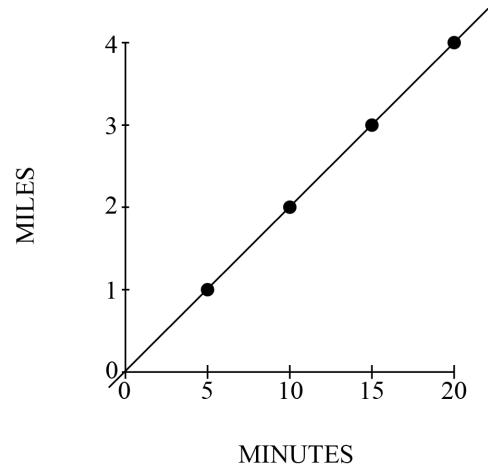
We will upload the classnotes (as the **answers and solutions**) **after the class** (exam).

Self-Round

- 1 A circle and two distinct lines are drawn on a sheet of paper. What is the largest possible number of points of intersection of these figures? () .
A. 2 B. 3 C. 4 D. 5 E. 6

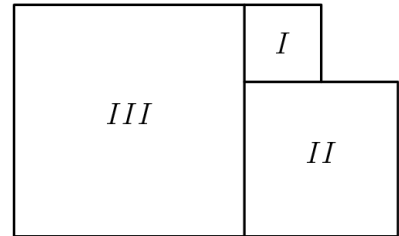
- 2 The ten-letter code **BEST OF LUCK** represents the ten digits **0-9**, in order. What **4**-digit number is represented by the code word **CLUE**? () .
A. 8671 B. 8672 C. 9781 D. 9782 E. 9872

- 3 The graph shows the constant rate at which Suzanna rides her bike. If she rides a total of a half an hour at the same speed, how many miles would she have ridden? () .



- A. 5 B. 5.5 C. 6 D. 6.5 E. 7

- 4 Figures *I*, *II*, and *III* are squares. The perimeter of *I* is and the perimeter of *II* is. The perimeter of *III* is () .



- A. 9 B. 18 C. 36 D. 72 E. 81

- 5 Which of the following figures has the greatest number of lines of symmetry? () .

- A. equilateral triangle B. non-square rhombus
C. non-square rectangle D. isosceles trapezoid
E. square

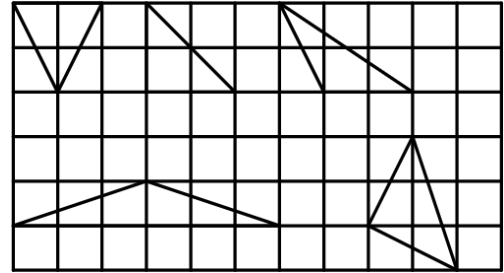
- 6 In a town of 351 adults, every adult owns a car, motorcycle, or both. If 331 adults own cars and 45 adults own motorcycles, how many of the car owners do not own a motorcycle? () .

- A. 20 B. 25 C. 45 D. 306 E. 351

- 7 What is the sum of the two smallest prime factors of 250? () .

- A. 2 B. 5 C. 7 D. 10 E. 12

- 8 An isosceles triangle is a triangle with two sides of equal length. How many of the five triangles on the square grid below are isosceles? () .



A. 1 B. 2 C. 3 D. 4 E. 5

In-Class

- 9 Tyler has entered a buffet line in which he chooses one kind of meat, two different vegetables and one dessert. If the order of food items is not important, how many different meals might he choose? () .

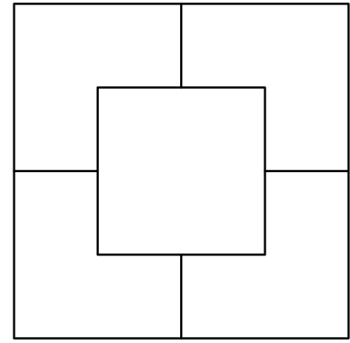
- Meat: beef, chicken, pork
- Vegetables: baked beans, corn, potatoes, tomatoes
- Dessert: brownies, chocolate cake, chocolate pudding, ice cream

A. 4 B. 24 C. 72 D. 80 E. 144

- 10 The Little Twelve Basketball League has two divisions, with six teams in each division. Each team plays each of the other teams in its own division twice and every team in the other division once. How many games are scheduled? () .

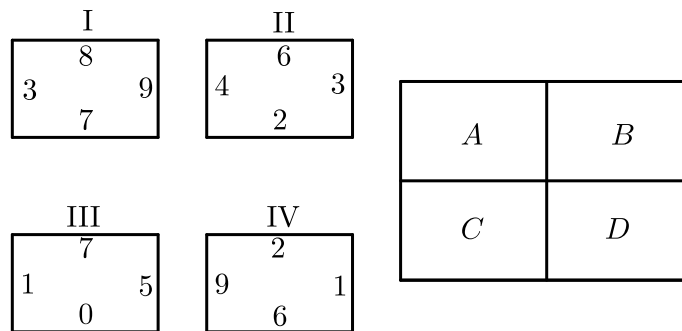
A. 80 B. 96 C. 100 D. 108 E. 192

- 11 The area of each of the four congruent L-shaped regions of this 100-inch by 100-inch square is $\frac{3}{16}$ of the total area. How many inches long is the side of the center square? () .



- A. 25 B. 44 C. 50 D. 62 E. 75

12 Tiles I, II, III and IV are translated so one tile coincides with each of the rectangles *A*, *B*, *C* and *D*. In the final arrangement, the two numbers on any side common to two adjacent tiles must be the same. Which of the tiles is translated to Rectangle *C*? () .



- A. I B. II C. III D. IV
- E. cannot be determined

13 A Novel Assignment.

The students in Mrs. Reed's English class are reading the same 760-page novel. Three friends, Alice, Bob and Chandra, are in the class. Alice reads a page in 20 seconds, Bob reads a page in 45 seconds and Chandra reads a page in 30 seconds. Before Chandra and Bob start reading, Alice says she would like to team read with them. If they divide the book into three sections so that each reads for the same length of time, how many seconds will each have to read? () .

- A. 6400 B. 6600 C. 6800 D. 7000 E. 7200

Let A be the area of the triangle with sides of length **25**, **25**, and **30**. Let B be the area of the triangle with sides of length **25**, **25**, and **40**. What is the relationship between A and B ? () .

A. $A = \frac{9}{16}B$ B. $A = \frac{3}{4}B$ C. $A = B$ D. $A = \frac{4}{3}B$ E. $A = \frac{16}{9}B$

15 Harold tosses a nickel four times . The probability that he gets at least as many heads as tails is () .

A. $\frac{5}{16}$ B. $\frac{3}{8}$ C. $\frac{1}{2}$ D. $\frac{5}{8}$ E. $\frac{11}{16}$

16 Hui is an avid reader. She bought a copy of the best seller Math is Beautiful. On the first day, Hui read $\frac{1}{5}$ of the pages plus **12** more, and on the second day she read $\frac{1}{4}$ of the remaining pages plus **15** pages. On the third day she read $\frac{1}{3}$ of the remaining pages plus **18** pages. She then realized that there were only **62** pages left to read, which she read the next day. How many pages are in this book? () .

A. **120** B. **180** C. **240** D. **300** E. **360**

17 The sum of six consecutive positive integers is **2013**. What is the largest of these six integers? () .

A. **335** B. **338** C. **340** D. **345** E. **350**

18 There are **24** four-digit whole numbers that use each of the four digits **2**, **4**, **5** and **7** exactly once. Only one of these four-digit numbers is a multiple of another one. Which of the following is it? () .

A. **5724** B. **7245** C. **7254** D. **7425** E. **7542**