Mathlete Training Centre WMI 2022 GRADE 5A

1.
$$3\frac{7}{15} \times \frac{3}{8} \div 3\frac{9}{10} = ?$$

(A)
$$\frac{1}{2}$$
 (B) $\frac{1}{3}$

(C)
$$\frac{2}{3}$$
 (D)

(A) $\frac{1}{2}$ (B) $\frac{1}{3}$ (C) $\frac{2}{3}$ (D) $\frac{3}{4}$

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- 3. In "5.9441", the 4's on the left is 4 ($\,$), and the 4 on the right is ($\,$) times of the 4 on its left.
 - **(A)** 0.1, 10
- **(B)** 0.01, 10
- (C) 0.11, 0.1
- **(D)** 0.01, 0.1

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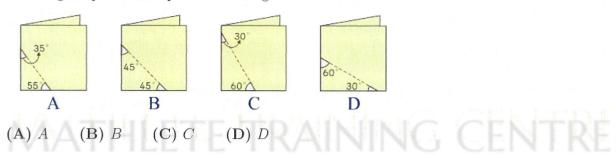
- 4. A bottle holds $3\frac{1}{5}$ litres of juice. If John drank $\frac{3}{4}$ bottleof juice, his sister drank 500 milliliters of juice, how many milliliters of juice were left in the bottle?
 - (A) 300
- **(B)** 400
- (C) 600
- (D) 800

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5. Fold each piece of paper below in half and cut them along the dotted line. Which of the following shapes in an equilateral triangle?



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6. Below shows the math test result of eight students. The perfect score is 100 points, and the average sscore is 68 points. Suppose Frank's score is the highest of the eight, and he gets twice of the points that one of the seven other students gets. How many points does Chris get?

Alex	Ben	Chris	Debby	Elsa	Frank	Gill	Helen
76	48		90	35		54	82

(A) 70 (B) 63 (C) 53 (D) 51

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7. How many \square 's are there to make the 2-digit number $4\square$ and the 3-digit number $1\square$ 7 both prime numbers? (The two \square 's are the same digit)

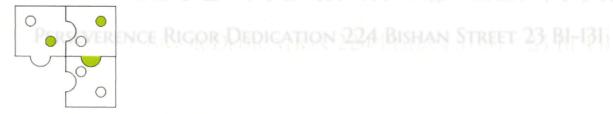
(**A**) 1

- (B) 2
- (C) 3
- (D) 4

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8. Which option below makes the right figure a line-symmetrical figure?



(A)



(B)



(C)



(D)



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9. Given 5 different quadrilaterals in the picture. How many of them have exactly three of the characters written below?











- 4 sides of equal length
- 4 angles are right angles
- 2 pairs of opposite sides are parallel
- 2 pairs of opposite angles are equal
- Cut along the diagonal to make 2 identical isoceles right triangles
- (A) 5
- (B) 4
- (C) 3
- (D) 2

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- 10. A glass of lemonade holds 1.08 litres. It contains 0.73 litres of water, and the rest is lemon juice. If the store owner makes x glasses of lemonade today, how many litres of lemon juice are used?
 - (A) $1.08 \times x$
- **(B)** $0.73 \times x$
- (C) $(1.08 0.73) \times x$
- **(D)** $(1.08 + 0.73) \times x$

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- 11. A 170cm long rope is fully used to make a rectangle with integral side lengths in cm. Among all the possible rectangles, the largest has the area of $a \ cm^2$, and the smallest has the area of $b \ cm^2$. Find a b.
 - (A) 1772
- (B) 1722
- (C) 1720
- (D) 1716

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12. A vaccine factory planned to make 4800 ten thousand vaccines in 30 days. The progress in the actual production is better than expected. 40 ten thousand moer vaccines are produced

per day than the original plan. At this rate, how many days earlier can the production be completed?

- (A) 4
- (B) 5
- (C) 6
- (D) 8

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- 13. Given 7 integers. Their mean, median, the only mode, and range are all 7. Among these 7 integers, which option below cannot be the smallest number?
 - (A) 2
- (B) 4
- (C) 5
- (D) 6

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- 14. Mom buys ninety some apples. When they are packed in bags of 6 or 8, there will be exactly 1 apple left. If Mom packs them in bags of 5, how many apples will be left?
 - (\mathbf{A}) 1
- **(B)** 2
- (C) 3
- (D) 4

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15. Find the volume of this composite rectangular cylinder in this picture. (All the angles are right angles)



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