

## MCE Singapore Maths Competition Sample Questions

### Grade 3

1. Arrange the fractions from the largest to the smallest.

$$\frac{2}{3}, \frac{6}{7}, \frac{1}{2}$$

A.  $\frac{6}{7}, \frac{2}{3}, \frac{1}{2}$

B.  $\frac{6}{7}, \frac{1}{2}, \frac{2}{3}$

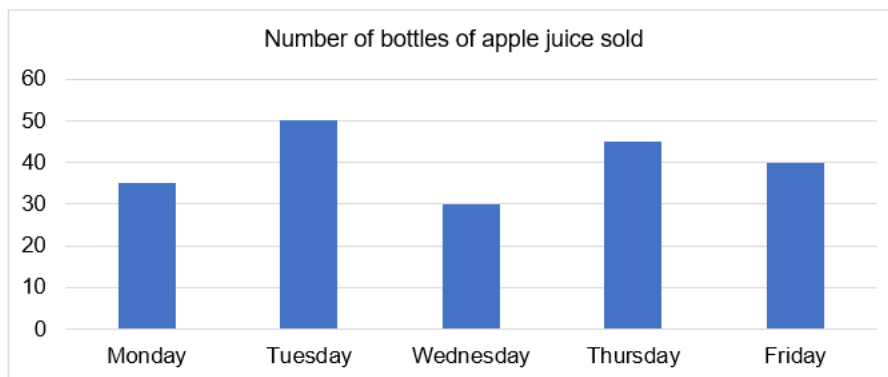
C.  $\frac{2}{3}, \frac{6}{7}, \frac{1}{2}$

D.  $\frac{2}{3}, \frac{1}{2}, \frac{6}{7}$

2. How many more tens is 9000 than 8760?

- A. 240  
B. 24  
C. 40  
D. 4

8. The graph below shows the number of bottles of apple juice sold from Monday to Friday. If the total number of bottles sold from Monday to Friday is 4 times the total number of bottles sold on Saturday and Sunday, how many bottles were sold on Saturday and Sunday?



- A. 800  
B. 200  
C. 50  
D. 40

21. Nancy is 6 years old. Her father is 6 times as old as she.  
In how many years' time will her father be 4 times her age?

## Grade 4

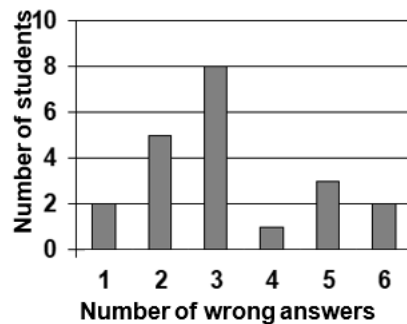
1. Find the value of  $2\frac{1}{3} - 1\frac{5}{12}$ .

- A.  $\frac{11}{12}$
- B.  $1\frac{1}{4}$
- C.  $1\frac{7}{12}$
- D.  $2\frac{1}{4}$
- E.  $2\frac{1}{3}$

2. What is the lowest common multiple of 6 and 9?

- A. 9
- B. 12
- C. 18
- D. 36
- E. 54

13. A group of students was given a quiz of 6 questions. The graph below shows the number of questions in the quiz that the students answered wrongly. None of them answered all the questions correctly.



What fraction of the students had less than 3 correct answers?

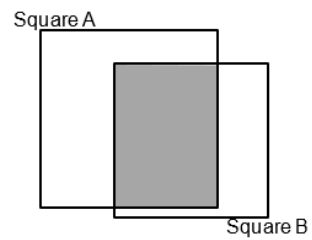
14. Nariko and Phoebe went shopping with the same amount of money. After Nariko spent \$8.80 and Phoebe spent \$50, Nariko had 5 times as much money left as Phoebe. How much money did Phoebe have after shopping?

## Grade 5

2. If  $a$  is divided by  $b$ , the result is  $\frac{3}{4}$ . If  $b$  is divided by  $c$ , the result is  $\frac{5}{6}$ .  
What is the result when  $a$  is divided by  $c$ ?
- (A)  $\frac{1}{2}$       (B)  $\frac{4}{5}$       (C)  $\frac{5}{8}$       (D)  $\frac{7}{8}$       (E)  $\frac{7}{12}$
3. Wilma had a bag of candies. She gave  $\frac{1}{2}$  of them to Xander.  
Xander gave  $\frac{1}{3}$  of what she received to Yvette, and Yvette gave  $\frac{1}{4}$  of what she received to Zoe. If Zoe received 3 candies from Yvette, how many candies did Wilma have in her bag at first?
- (A) 12      (B) 64      (C) 72      (D) 84      (E) 108
11. Sam takes 2 hours to bake a cake.  
Tim takes 3 hours to bake a cake.  
How long will it take to bake a cake if they work together?  
Give your answer in minutes.
12. A piece of string 84 cm long is used to form the perimeters of two squares.  
The sides of the two squares are a whole number of cm.  
What is the greatest possible sum of the areas of these two squares?

Grade 6

2. The ratio of the area of Square A to the area of Square B is 6:5. The shaded area is  $\frac{8}{15}$  of the area of Square A. What percentage of Square B is shaded?



- (A) 44%      (B) 54%      (C) 64%      (D) 74%      (E) 83%
3.  $0.15 \times 40 = \underline{\hspace{2cm}} \div 100$
- (A) 0.6      (B) 6      (C) 60      (D) 600      (E) 6000
14. Nicholas filled half a glass with orange juice, and then filled the rest up with 7-Up. After mixing the two liquids thoroughly, he drank  $\frac{1}{4}$  of the amount. He then filled the glass up with 7-Up. What is the ratio of orange juice to 7-Up in the final mixture?
15. Each side of Cube A is  $3x$  cm. Each side of Cube B is  $5x$  cm. What is the ratio of the volume of Cube A to the volume of Cube B?