

## 2023 Spring G3 Preview

### Day 1

1 Express the following fractions as decimals.

(1)  $\frac{1}{10} = \underline{\hspace{2cm}}$

(2)  $\frac{7}{10} = \underline{\hspace{2cm}}$

(3)  $\frac{1}{100} = \underline{\hspace{2cm}}$

(4)  $\frac{49}{100} = \underline{\hspace{2cm}}$

(5)  $\frac{365}{1000} = \underline{\hspace{2cm}}$

(6)  $\frac{1}{4} = \underline{\hspace{2cm}}$

2 Calculate:

(1)  $5.3 + 10.2 = \underline{\hspace{2cm}}$

(2)  $7.8 + 2.1 = \underline{\hspace{2cm}}$

(3)  $11.1 + 22.2 = \underline{\hspace{2cm}}$

3 Calculate:

(1)  $11.7 + 2.3 = \underline{\hspace{2cm}}$

(2)  $2.55 + 7.68 = \underline{\hspace{2cm}}$

(3)  $16.98 + 23.04 = \underline{\hspace{2cm}}$

4 Calculate:

(1)  $11.6 - 8.3 = \underline{\hspace{2cm}}$

(2)  $25.4 - 17.1 = \underline{\hspace{2cm}}$

(3)  $9.2 - 7.5 = \underline{\hspace{2cm}}$

5 Calculate:

(1)  $10.25 - 3.94 = \underline{\hspace{2cm}}$

(2)  $18.07 - 9.19 = \underline{\hspace{2cm}}$

(3)  $20.23 - 19.45 = \underline{\hspace{2cm}}$

## Day 2

6 How many numbers below are divisible by 2?

79

68

97

14

37

5555

A. 1

B. 2

C. 3

D. 4

7 How many numbers below are divisible by 5?

269

680

555

1000

87

2345

A. 1

B. 2

C. 3

D. 4

8 How many numbers below are divisible by 3?

269

680

555

1000

87

2345

A. 1

B. 2

C. 3

D. 4

9 Simplify the following expressions:

(1)  $a + 2a + 3a = \underline{\hspace{2cm}}$  .

(2)  $4 \times b = \underline{\hspace{2cm}}$  .

(3)  $2a + b - a = \underline{\hspace{2cm}}$  .

(4)  $x \times x \underline{\hspace{2cm}}$  .

10 Simplify the following expressions:

(1)  $9a - 5a + 9 - 3 = \underline{\hspace{2cm}}$  .

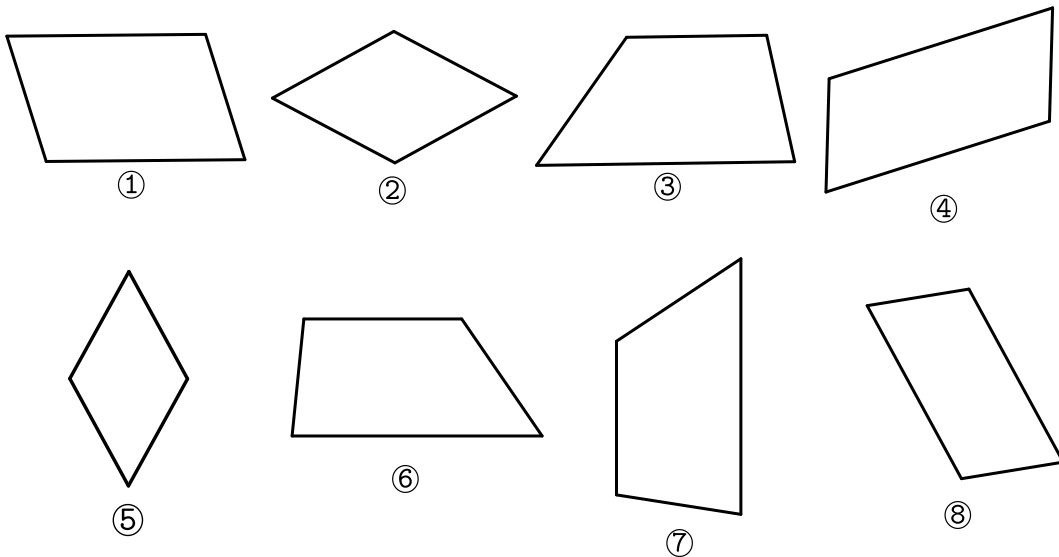
(2)  $2b + 9 + 4b + 13 = \underline{\hspace{2cm}}$  .

(3)  $3x + 11 - x = \underline{\hspace{2cm}}$  .

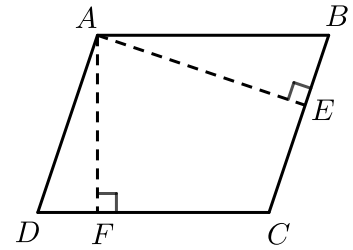
(4)  $x - 2y + 9 - y + 5 = \underline{\hspace{2cm}}$  .

Day 3

- 11 As shown below, \_\_\_\_\_ are parallelograms, and \_\_\_\_\_ are trapezoids. (Write the serial number of each figure on the line.)

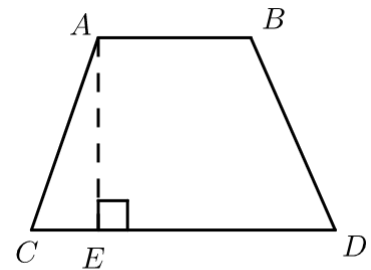


- 12 As shown below, in parallelogram  $ABCD$ ,  $CD = 9$  cm,  $AF = 8$  cm, and  $BC = 6$  cm.



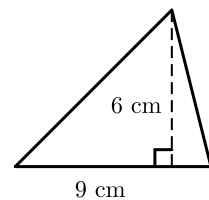
- (1) The area of this parallelogram is \_\_\_\_\_  $\text{cm}^2$ .
- (2) The length of  $AE$  is \_\_\_\_\_  $\text{cm}$ .

- 13 As shown in the figure below,  $AB = 3$ ,  $CD = 5$ ,  $AE = 4$ . What is the area of trapezoid  $ABDC$ ?

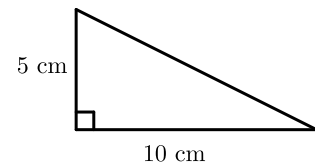


- 14 Calculate the area of each triangle.

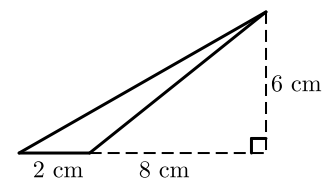
(1)



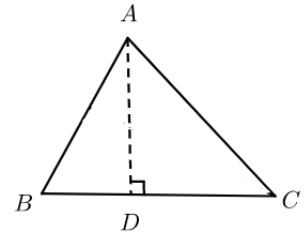
(2)



(3)



- 15 As shown in the figure below,  $BC = 12$   $\text{cm}$ , and the area of triangle  $ABC$  is  $48$   $\text{cm}^2$ . What is the length of  $AD$ ?


**Day 4**

16  $\frac{3}{17}$   $\frac{25}{11}$   $4\frac{8}{9}$   $\frac{14}{15}$   $\frac{23}{14}$   $6\frac{2}{3}$   $\frac{47}{55}$   $3\frac{3}{10}$

- (1) How many proper fractions are there among the fractions above?  
 A. 1                      B. 2                      C. 3                      D. 4
- (2) How many improper fractions are there among the fractions above?  
 A. 1                      B. 2                      C. 3                      D. 4
- (3) How many mixed numbers are there among the fractions above?  
 A. 1                      B. 2                      C. 3                      D. 4

17 Rewrite the mixed numbers as improper fractions.

(1)  $5\frac{2}{3} = \underline{\hspace{2cm}}$  .

(2)  $2\frac{4}{7} = \underline{\hspace{2cm}}$  .

(3)  $8\frac{5}{9} = \underline{\hspace{2cm}}$  .

(4)  $4\frac{12}{13} = \underline{\hspace{2cm}}$  .

18 Rewrite the improper fractions as mixed numbers.

(1)  $\frac{11}{7} = \underline{\hspace{2cm}}$  .

(2)  $\frac{16}{5} = \underline{\hspace{2cm}}$  .

(3)  $\frac{35}{11} = \underline{\hspace{2cm}}$  .

(4)  $\frac{9}{2} = \underline{\hspace{2cm}}$  .

19 Fill in the blanks.

(1)  $\frac{15}{24} = \frac{15 \div 3}{24 \div (\quad)} = \frac{5}{(\quad)}$

(2)  $\frac{4}{7} = \frac{4 \times (\quad)}{7 \times 5} = \frac{(\quad)}{(\quad)}$

(3)  $\frac{5}{8} = \frac{5 \times (\quad)}{8 \times (\quad)} = \frac{25}{(\quad)}$

$$(4) \quad \frac{9}{14} = \frac{27}{(\quad)}$$

$$(5) \quad \frac{9}{18} = \frac{1}{(\quad)}$$

$$(6) \quad \frac{16}{36} = \frac{(\quad)}{9}$$

20 Find the simplest form of each fraction below.

$$(1) \quad \frac{5}{10} = \underline{\hspace{2cm}} .$$

$$(2) \quad \frac{8}{18} = \underline{\hspace{2cm}} .$$

$$(3) \quad \frac{9}{39} = \underline{\hspace{2cm}} .$$

$$(4) \quad \frac{12}{15} = \underline{\hspace{2cm}} .$$



(5)  $\frac{16}{96} = \underline{\hspace{1cm}}$  .