

[5th Kyu]**Section 1: Calculation Test****1**

Calculate.

(1) 425×0.52

(2) 0.27×3.6

(3) $9.52 \div 2.8$

(4) $\frac{4}{9} + \frac{7}{18}$

(5) $\frac{7}{8} - \frac{5}{12}$

(6) $1\frac{1}{21} - \left(\frac{5}{7} - \frac{1}{3}\right)$

(7) $42 \times \frac{5}{6}$

(8) $1\frac{11}{16} \times \frac{8}{9}$

(9) $14 \div \frac{7}{12}$

(10) $1\frac{17}{18} \div 1\frac{1}{6}$

(11) $\frac{15}{28} \div \frac{9}{10} \times \frac{14}{25}$

(12) $350 \div \left(\frac{2}{5} + \frac{3}{10}\right)$

2

Find the greatest common factor (GCF) for each set of numbers.

(13) (8, 20)

(14) (24, 36, 48)

3Find the value of x in each of the following.

(15) $x \times 5 - 7 = 8$

(16) $(12 + x) \div 0.4 = 50$

4

Write each of the following ratios in simplest form.

(17) $12 : 30$

(18) $\frac{2}{3} : \frac{1}{4}$

5

Fill in the blanks.

(19) $3 : 7 = \square : 21$

(20) $1.6 : 4 = 6 : \square$

6

Simplify.

(21) $(-17) - (-4) - (+8)$

(22) $-3^2 + (-2)^3$

(23) $9(4x - 3) - 7(5x + 6)$

7Find the values of the following expressions when $x = -3$.

(24) $4x - 3$

(25) $x^2 - 2x$

8Solve for x in the following equations.

(26) $4x - 5 = 6x + 7$

(27) $\frac{3x+2}{8} - \frac{x-8}{6} = 2$

9

Answer the following.

(28) A triangle has base $6a$ cm and height 5 cm. Express the area, in cm^2 , using a .

(29) y is directly proportional to x and $y = 8$ when $x = 2$. Find the value of y when $x = -3$.

(30) y is inversely proportional to x and $y = -9$ when $x = 6$. Express y in terms of x .