

2007_Grade_6_Mathematics_Set_A

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2007 Problem Set A

[1] Calculate the following.

(1) $28+72$

(2) 27×3.4

(3) 9.3×0.8

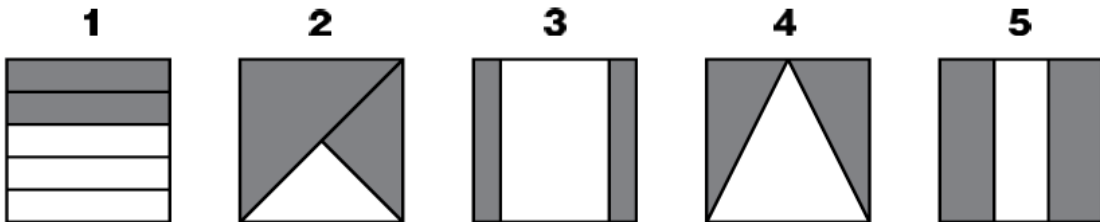
(4) $12 \div 0.6$

(5) $1 - \frac{5}{8}$

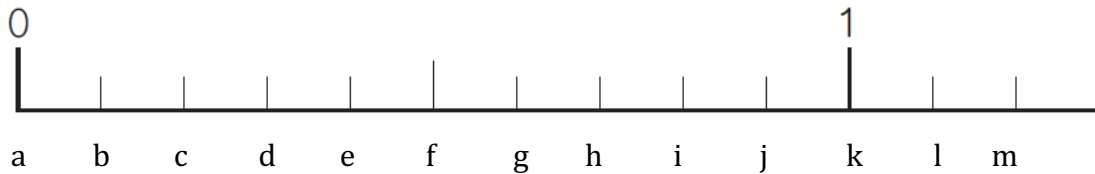
(6) $\frac{3}{7} + \frac{4}{7}$

(7) $6 + 0.5 \times 2$

[2] Of the following squares, which one has $\frac{2}{3}$ of it shaded? Select one from **1** through **5** below and write the number.



[3] On the number line shown below, there are tick marks that divide the space between the consecutive whole numbers into 10 equal spaces. Answer the following questions.



(1) Select the tick mark for $\frac{7}{10}$ from **a** through **m** and write the letter.

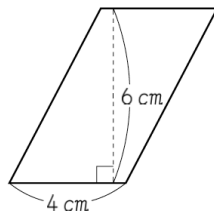
(2) We are going to find the largest of 0.5 , $\frac{7}{10}$, and $\frac{4}{5}$ from the number line. Select the tick mark for the largest number from **a** through **m** and write the letter.

[4] Select the problem that can be solved by 210×0.6 from **1** through **4** below and write the number.

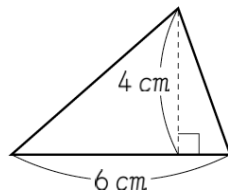
- 1** We bought 0.6 kg of sugar and paid 210-yen for it. How much will 1 kg of the same sugar cost?
- 2** We are going to put 210 kg of soy beans into bags so that there will be 0.6 kg in each bag. How many bags are needed to put away all of the soy beans?
- 3** 1 m of ribbon costs 210-yen, and we bought 0.6 m of it. How much was the price?
- 4** A red tape is 210 cm long. The red tape is 0.6 times as long as a white tape. How many cm is the length of white tape?

[5] Write the expressions to calculate the area of the following figures below and the answers.

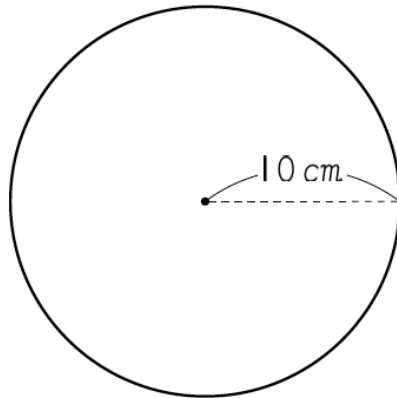
(1) Parallelogram



(2) Triangle

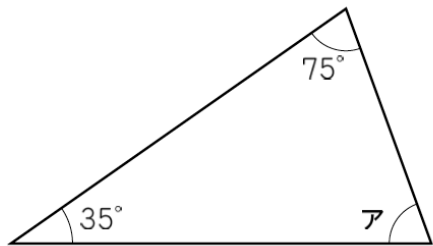


- (3) Circle (Use 3.14 for the value of pi.)



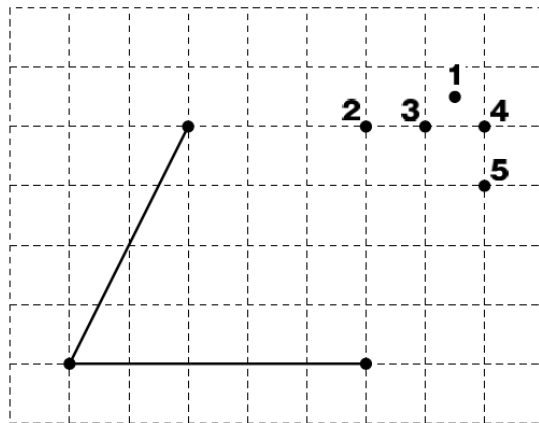
- [6] Answer the following questions.

- (1) How many degrees is the measure of angle **a** in the triangle shown below? Write your answer.

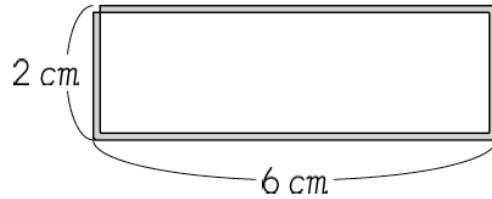
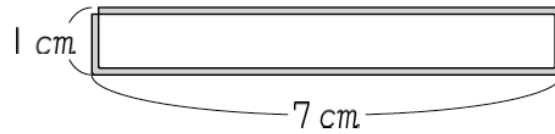


>>> label the bottom right corner as **a** <<<

- (2) We are drawing a parallelogram on the grid paper shown below. Where will the final vertex be? Select from **1** through **5** and write the number.



- [7] As shown in the figure below, we are going to make rectangles and squares using strings that are each 16 cm long.



⋮

- (1) When the vertical side of a rectangle is 3 cm long, how many cm will the length of horizontal sides be? Write your answer.
- (2) We are going to summarize the relationship between the lengths of vertical sides and horizontal sides in a table. Fill in the blank spaces on the answer sheet with the appropriate numbers.

たて (cm)	1	2	3	4	5	6	7
横 (cm)	7						

>>> the top row of the table should be labeled "Vertical (cm)" and the bottom row "Horizontal (cm)" <<<

- (3) When the lengths of vertical sides of these rectangles and squares increase by 1 cm, what happens to the lengths of the horizontal sides?
On your answer sheet, write the appropriate number and circle either "increase" or "decrease."