

SUBJECT TEST

# Mathematics

GRADE

9

Tests which are re-used are protected by paragraph 3 of Chapter 4 of the Official Secrets Act.  
The intention is for this test to be re-used until 2016-06-30.  
This should be considered when determining the applicability of the Official Secrets Act.

Spring 2010

## Part B1

Name

## Part B1

This part consists of short questions to be solved without a calculator. A correct answer gives 1 g-point (1/0) or 1 vg-point (0/1).

*Time:* 80 minutes for Part B1 and Part B2 together. We recommend that you use 30 minutes at the most for working on Part B1. You may not use your calculator until you have handed in Part B1.

Only the answers are required. Write your answers in the spaces provided on this question page.

You can save time by doing mental arithmetic as much as possible.

Name: \_\_\_\_\_

School: \_\_\_\_\_ Class: \_\_\_\_\_

Birth date: Year\_\_ Month\_\_\_\_ Day\_\_\_\_\_

Female  Male

1. Robin is going to take the bus that leaves at 8.07.  
It takes him 15 minutes to walk to the bus stop.  
When must he leave home, at the latest?      Answer: \_\_\_\_\_ (1/0)

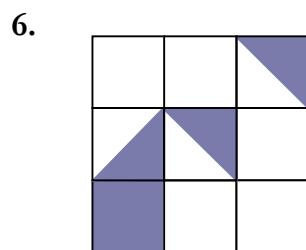
2. Write a number in the box so that  
the equality holds.       $\frac{18}{2} = 18 \cdot \boxed{\phantom{000}}$  (1/0)

3. Calculate  $13 - 25 + 7$       Answer: \_\_\_\_\_ (1/0)

4. 1 tablespoon is 15 ml  
1 teaspoon is 5 ml

- How many teaspoons correspond  
to 4 tablespoons?      Answer: \_\_\_\_\_ tbsp (1/0)

5. Calculate  $17 - 7 \cdot 2$       Answer: \_\_\_\_\_ (1/0)



What fraction of the figure is shaded?  
Circle your answer.

- $\frac{4}{12}$        $\frac{4}{9}$        $\frac{5}{9}$        $\frac{4}{18}$        $\frac{5}{18}$  (1/0)

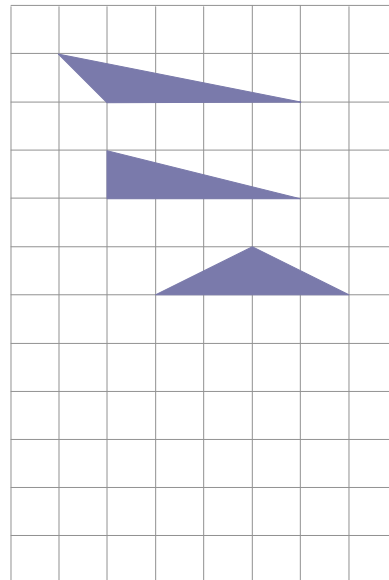
7. What is half of  $\frac{1}{3}$ ?  
Write your answer as a fraction. Answer: \_\_\_\_\_ (1/0)

8. Calculate  $\frac{12}{0.03}$  Answer: \_\_\_\_\_ (1/0)

9. Solve the equation  $13 - 3x = 7$  Answer:  $x =$  \_\_\_\_\_ (1/0)

10. What number is 0.1 less than 4.06? Answer: \_\_\_\_\_ (1/0)

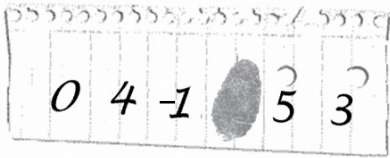
11. Draw a new triangle in the squared region. It is to have a base that is half as long as the given ones, but the same area as each of the given triangles.



(0/1)

12. Simplify as much as possible  $5a - 3 + 7 - 8a$  Answer: \_\_\_\_\_ (0/1)

13. Anton has recorded the temperature for six days and calculated the average temperature to be  $2^\circ\text{C}$ . In his recording of the temperatures one value has been lost. What was that value?



Answer: \_\_\_\_\_  $^\circ\text{C}$  (0/1)

14. Fill in the empty boxes in the table.

$x$	$x^2$	$\sqrt{x}$
9		

(0/1)

15. What value must  $x$  have in order for the equality to be true?

$$0.032 = 3.2 \cdot 10^x$$

Answer:  $x =$  \_\_\_\_\_ (0/1)

16. State a formula that describes the relationship between  $x$  and  $y$ .

$x$	$y$
5	13
7	17
9	21

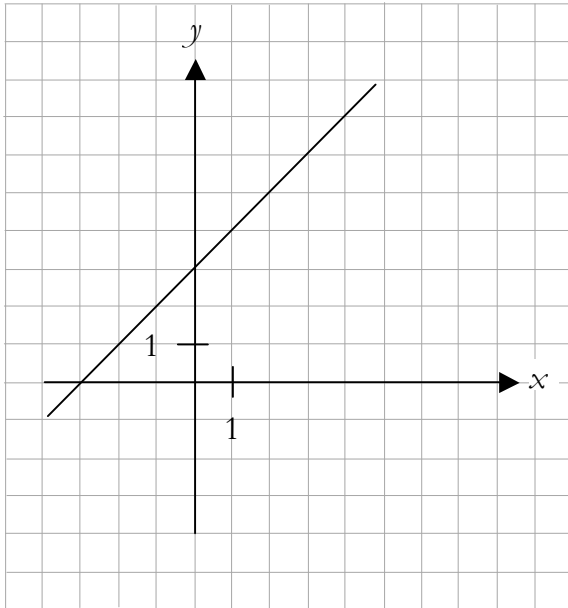
Answer: \_\_\_\_\_ (0/1)

17. Simplify as much as possible

$$\frac{a + a + a + a + a}{a + a}$$

Answer: \_\_\_\_\_ (0/1)

18.



Which of the following relationships describes the graph?  
Circle your answer.

(0/1)

$y = x - 3$

$y = 3 - x$

$y = 2x + 3$

$y = x + 3$

$y = 3x$



