

## MATHEMATICS TEST

### Year 9 – Part B1

This part is composed of short answer items, which shall be solved without the use of a calculator. A correct answer gives 1 g-point (1/0) or 1 vg-point (0/1).

Test period: 80 minutes for Part B1 and Part B2 as a whole. We recommend that you use at the most 30 minutes to work with Part B1. You must not use the calculator before you have handed in Part B1.

Only answers are required. The answers are to be written on the test paper.

To save time use mental arithmetic as much as possible.

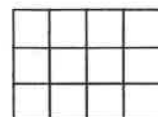
Name: \_\_\_\_\_

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

Date of birth: Year \_\_\_\_\_ Month \_\_\_\_\_  
Day \_\_\_\_\_

Girl ☐ Boy ☐

1. Shade  $\frac{2}{3}$  of the figure.



(1/0)

2. Which one of the following numbers is the smallest? Circle your answer.

2.9

2.98

2.998

2.889

2.89

(1/0)

3. A TV-programme starts at 19.15 and runs for 1 h and 55 min. What time is it when the TV-programme ends?

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

4.  $3.45 - 0.5 =$

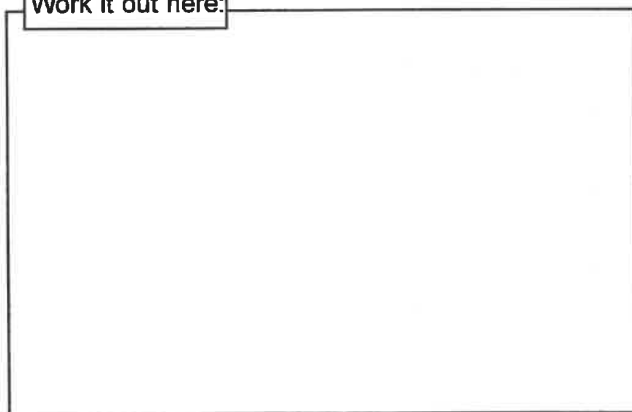
Answer: \_\_\_\_\_ (1/0)

5. A sweater costs 400 kr. How much do you have to pay if you get 15 % discount?

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

6. Show in any way how you calculate  $21 \cdot 203$  without a calculator.

Work it out here:



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

7.  $\frac{8}{0.5} =$  Answer: \_\_\_\_\_ (1/0)

8. Circle the equation that has the solution  $x = 3$ .

$x + 2 = 1$

$\frac{x}{3} = 3$

$\frac{x+4}{3} = 4$

$3x - 3 = 6$

$\frac{6}{x} = 3$

(1/0)

9. 40 bags of chips weigh 5 kg. Find the weight of one bag.  
What calculation do you use? Circle your answer.

$40/5$

$40 - 5$

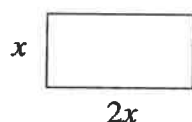
$40 \cdot 5$

$5/40$

$40 + 5$

(1/0)

10. Find the perimeter of the rectangle when  $x = 5$  m.

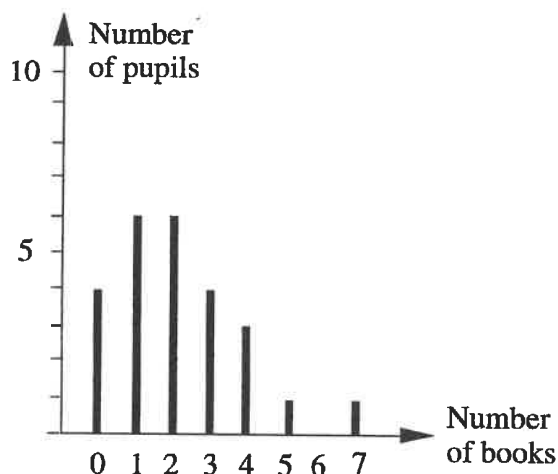


Answer: \_\_\_\_\_ m (1/0)

11. A motorbike runs 9 km in 10 minutes.  
Calculate in km/h the average speed of the motorbike.

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

12. The diagram shows how many books the pupils in a class have read during the summer holidays.



a) How many pupils were there in the class?

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

b) Find the median number of read books?

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

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13. In which one of the following calculations do you get the smallest number? Circle your answer.

25/0.96      25 · 0.96      25/0.99      25 · 0.99      (0/1)

14. Make an estimation and circle the best alternative to  $0.39 \cdot 0.84$ .

0.033      0.12      0.33      1.2      3.3      (0/1)

15. Solve the equation  $17 - 4x = 11$

Answer:       $x =$            (0/1)

16. Give an example of a fraction that is larger than  $\frac{6}{7}$  but smaller than 1.

Answer:                           (0/1)

17. During a week the following temperatures were read off at 13.00 o'clock:

Day	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
Temp. ° C	-3	3	-2	4	-2	-3	-4

Find the average temperature.

Answer:                      ° C      (0/1)

18. Solve the equation  $7(x - 3) = 49$

Answer:       $x =$            (0/1)

19. The table shows the relation between  $x$  and  $y$ .

$x$	1	2	4	6	8
$y$	5	7	11	15	19

Circle the formula that shows the relation between  $x$  and  $y$ .

$y = 5x$        $y = 6 - x$        $y = 6x - 1$        $y = x^2 + 4$        $y = 2x + 3$       (0/1)