

**MATHEMATICS TEST**  
**Year 9 – Part B1**  
**Spring 2003**

**The contents of this test material must remain *secret* until June 30, 2013.**

This part consists of short answer questions to be solved without the calculator. A correct answer gives 1 “Pass” point (G) (1/0) or 1 “Pass-with-distinction” point (VG) (0/1).

Time: 80 minutes for Part B1 and Part B2 together. We recommend that you use at most 30 minutes for 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 the question page.

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

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

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

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

Day \_\_\_\_\_

Girl ☐

Boy ☐

1. Write the number *one and a half million* with digits (figures).

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

2. Which number is the smallest? Circle your answer.

1.01      1.002      1.101      1.11      1.02      (1/0)

3. How many grams is 0.3 kg?

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

4.  $1\,007 - 109 =$

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

5. A TV normally costs 15 000 crowns but is sold with a discount of 30 %  
How much is the discount in crowns?

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

6.  $\frac{6}{0.2} =$

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

7.  $10^3 - 10^2 =$

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

8. Solve the equation  $3x + 5 = 17$

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

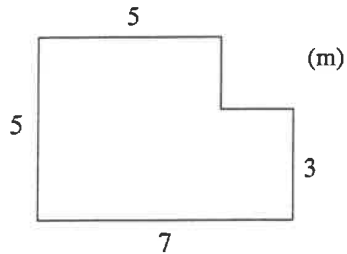
9. A train trip started at time 19.55 and ended at 22.48. How much time did the trip take?

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

10. Find half of  $\frac{3}{4}$ ? Circle your answer.

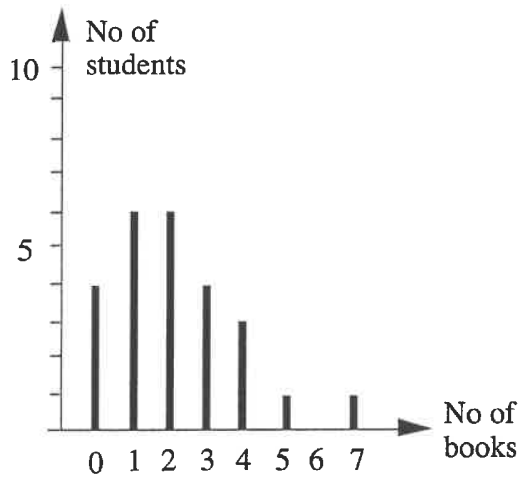
$\frac{3}{2}$        $\frac{6}{8}$        $\frac{3}{8}$        $\frac{6}{4}$        $\frac{4}{6}$       (1/0)

11. The figure shows the floor in a room that is to have a new carpet. How many square meters of carpet is required?



Answer: \_\_\_\_\_  $m^2$  (1/0)

12. The diagram shows how many books the students in a certain class read during the summer holiday.



- a) How many students were there in the class?  
b) Find the median number of books read.

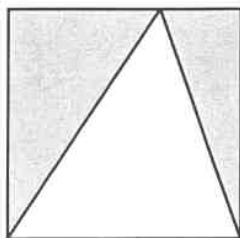
Answer: \_\_\_\_\_ students (1/0)

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

13. Fill in the missing number.

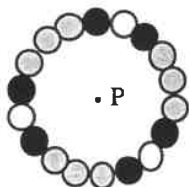
2      5      10      \_\_\_\_\_      26      etc      (0/1)

14. How large part of the square is shaded?



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

15. The ring is rotated around the point P.  
State *the least possible number* of degrees  
it must be rotated so that the pattern will  
again look like the original pattern.



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

16. Which of the following expressions means half of  $a$ ?  
Circle your answer.

$a - 2$        $\frac{a}{2}$        $\frac{2}{a}$        $\frac{1}{2a}$        $\frac{a}{2a}$        $\frac{a}{0.5}$  (0/1)

17. Suppose you know the mean age of three brothers. Which of the following questions can then be solved correctly? Circle your answer.

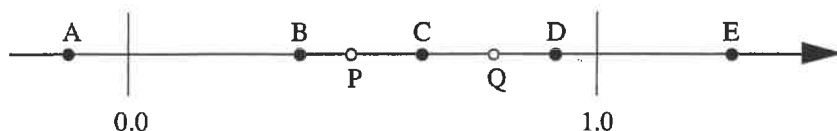
- How old are each of the brothers?
- What is the mean age of two of the brothers?
- What is the sum of all the brothers' ages?
- How old is the middle brother?

(0/1)

18. From 6 kg of apples you can make 28 dl of apple cider.  
How many litres of cider can you make from 15 kg  
of apples of the same variety?

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

19. Two numbers, P and Q, are marked on the number line  
below. Which of the numbers A, B, C, D or E can show  
the product  $P \cdot Q$ ?



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