

SUBJECT TEST

# Mathematics

GRADE

# 9

Spring  
2008

Secrecy until 2008-06-30

Version 1

## Part B1

Calculator and formula sheet are not allowed

Name

*Skolverket*

### Del B1

The contents of this test paper must remain *confidential* until June 30, 2008.

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 and formula sheet 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.  $2.65 + 0.5 =$

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

2. A small pail can hold  $\frac{1}{5}$  litre of sand.  
How many such small pails would be needed to fill a large pail that can hold 9 litres?

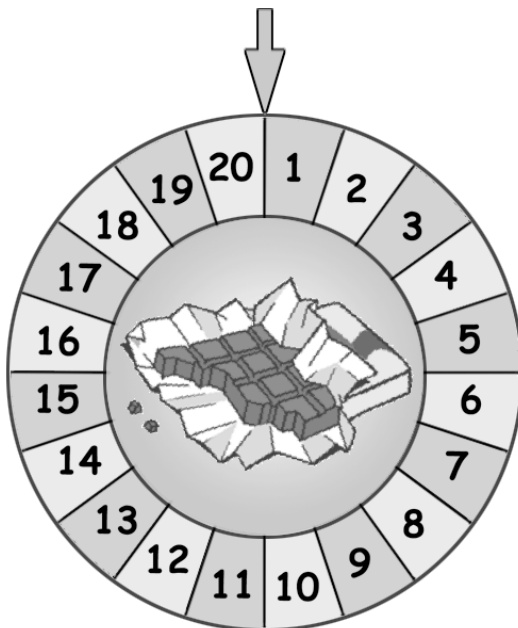


Answer: \_\_\_\_\_ small pails (1/0)

3. Write a number in the box so that the equation will be true.

$$\frac{35}{0.1} = 35 \cdot \boxed{\phantom{000}} \quad (1/0)$$

4.



Lisa is spinning this chocolate wheel of fortune. Every time one chocolate is randomly won. Lisa spins the wheel one time and puts her bet on four different numbers. Find the probability that she will win a chocolate.

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

5. Solve the equation  $\frac{x}{3} + 2 = 5$  Answer:  $x =$  \_\_\_\_\_ (1/0)

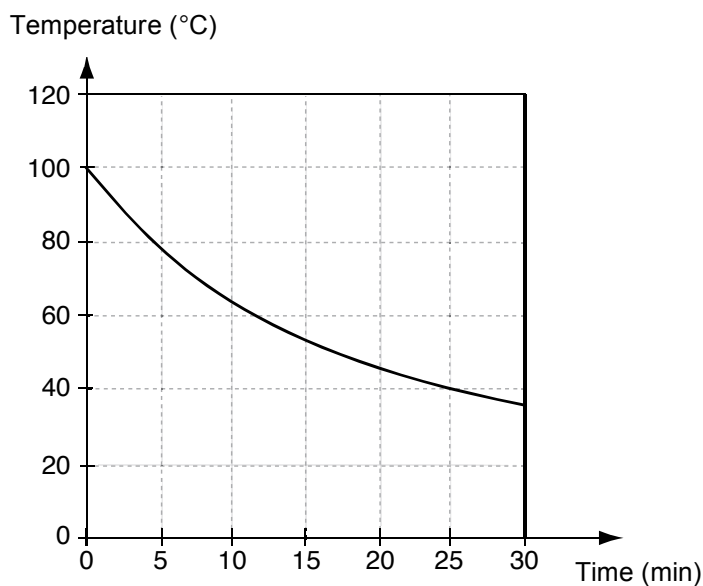
6. Which number is greatest? Circle your answer.

$\frac{7}{15}$        $\frac{25}{50}$        $\frac{49}{100}$        $\frac{10}{19}$        $\frac{1}{2}$  (1/0)

7. Study the pattern and state the number that is missing.

3      5      9      15      \_\_\_\_\_      33 Answer: \_\_\_\_\_ (1/0)

8. The diagram shows how the temperature for water falls as the water cools down.



How many minutes does it take for the temperature to fall from 60 °C to 40 °C?

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

9. State *one* number that is between 0.09 and 0.1 Answer: \_\_\_\_\_ (1/0)

10. A car travels with an average speed of 90 km/h.  
How far does the car travel in 20 min? Answer: \_\_\_\_\_ km (1/0)



11. How many *million* is  $7 \cdot 10^8$ ? Answer: \_\_\_\_\_ million (0/1)

12. Make an estimate and circle the best alternative  
for this number calculation  $0.27 \cdot 0.89$  (0/1)

0.027      0.24      0.33      2.4      2.7

13. When Karin has used up 40 % of her monthly  
allowance, she has 120 kr left. How much is  
her monthly allowance in total? Answer: \_\_\_\_\_ kr (0/1)



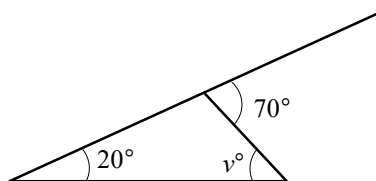
14. During one week Markus noted the following temperatures at 1 pm.

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

Find the average temperature.

Answer: \_\_\_\_\_° (0/1)

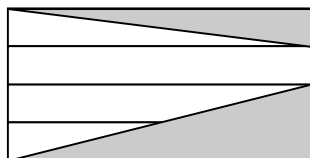
15.



Find angle  $v$ .

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

16.



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

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

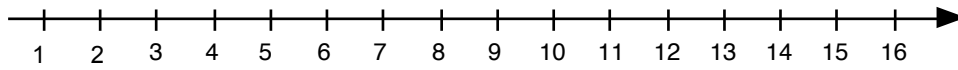
17.  $a = 3$  and  $b = -2$

Find the value of  $a(a + 2) + b$

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

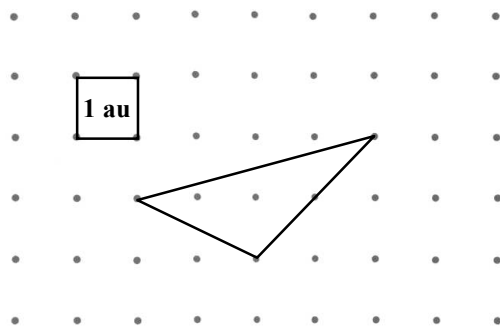
Without  
calculator

18. Mark  $\sqrt{8}$  on the number line.



(0/1)

19.



Find the area of the triangle expressed in area units (au).

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

20. Which of the numbers is a solution to the following equation?

$$x^2 + x - 12 = 0$$

Circle your answer.

-4                  -2                  0                  2                  4

(0/1)

