

The National Agency for Education, referring to 4 kap 3 § Sekretesslagen, emphasises that this material is to be kept confidential. **This material must remain confidential until the end of June 2016.**

**National Test in
MATHEMATICS
COURSE A
Spring 2006**

Part I

Instructions

Time	180 minutes altogether for Part I and Part II. It is recommended that you use a maximum of 30 minutes for Part I. You may not use your calculator until you have submitted your answers to Part I.
Tools	Approved formula page and ruler.
Part I	This part consists of questions to be solved without a calculator. <i>Only the answers are required.</i> A correct answer gives 1 g-point (1/0) or 1 vg-point (0/1).
Grade Limits	The examination (Part I + Part II) gives a maximum of 60 points of which 25 are vg-points. <i>Lower limits for examination grade</i> Pass (G): 19 points. Pass with Distinction (VG): 36 points of which at least 11 are vg-points. Pass with Special Distinction (MVG): At least 19-vg points. In addition you must demonstrate several of the MVG-qualities that are possible to show in the questions marked ■.

Name: _____ Date of birth: _____

Adult education/secondary school program: _____

1. Write 17 thousandths in decimal form. Answer: _____ (1/0)

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

3. What number lies *halfway between* -4 and 2 ? Answer: _____ (1/0)

4. You take the bus from the Motala bus station at quarter to seven. What time can you expect to arrive at the Linköping travel centre?

52

520

620

63

Motala–Borensberg/Fornåsa–Linköping

Express

Landsbygd

Måndag till fredag

LINJE ANMÄRKNING	620	520 C, J	63	52	520	63	520	63	520	620	52	63	520	63	520	620	620	52
Mariebergs gård		5.15	5.25	5.35		6.05		6.35			6.45							8.50
Metals busstation	5.20	5.25			5.45		6.15		6.45	6.50		7.12	7.13	7.42	7.43	8.00	8.45	
Stora Torget			5.35	5.45		6.15		6.45			6.55	7.15		7.45				9.00
Falkgatan		5.45		6.02	6.05		6.35		7.05		7.13		7.33		8.03			9.17
Borensberg		5.50		6.07	6.10		6.40		7.10		7.18		7.38		8.08			9.22
Österstad, Allévägen	5.33									7.03						8.13	8.58	
Fornåsa	5.40		5.51			6.31		7.01		7.12		7.31		8.01		8.20	9.05	
Klockrike	5.47								7.20							8.27	9.12	
Klockrike välgård	X		5.57			6.37		7.07		X		7.37		8.07		X	X	
Vreta klosters kyrka	6.00									7.35						8.40	9.25	
Köpmansgränd				X							X							X
Gamla Linköping		X	X		X	X	X	X	X			X	X	X	X			
Linköpings resecentrum	6.20	6.25	6.25	6.47	6.45	7.05	7.20	7.35	7.52	7.55	8.05	8.05	8.16	8.35	8.46	9.00	9.45	10.05

Anmärkning

C

Startar från hållplats Mariebergs gård klockan 05.15, trafikerar hållplatserna Mariebergs gård, Violgatan, Västerkrokan, Lyckornas centrum och Ödalgatan.

J

Forsätter till Saab Civila porten via hållplatserna Vete-gatan och Råberga bro.

Bra att veta

Frågor om tider och priser?

Ring Trafikupplysningen 0771-21 10 10 eller gå in på www.ostgotatrafiken.se

5. It is given that $15\,873 \cdot 7 = 111\,111$
Find the value of $15\,873 \cdot 21$? Answer: _____ (1/0)

6. Markus gets paid 70 kr per hour in wages. If he gets a raise of 5 %, what is his new hourly wage?

Answer: _____ kr (1/0)

7. Which of the following calculations gives the smallest answer? Circle your answer.

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

8. Matilda is going to buy candy for the class party. The price of the candy is 6.90 kr/hg. She has 165 kr. Make an estimate of how many hg she can buy.

Answer: _____ hg (1/0)

9. The table shows a relation between x and y . What number should be in the empty space?

x	y
1	3
2	5
4	
7	15

Answer: _____ (0/1)

10. Planting ground for flowers is packaged in bags holding 5 l each. How many such bags can be filled using one cubic meter of ground?

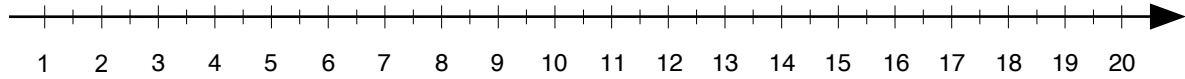
Answer: _____ bags (0/1)

11. Solve the equation $0.9(x - 9) = 9$

Answer: $x =$

(0/1)

12. Mark $\sqrt{10}$ on the number line.



(0/1)

13. Circle the alternative that is equal to $4\,000\ \mu\text{g}$.

0.4 g

4 mg

40 g

4 hg

0.04 kg

(0/1)

14. A cube has volume $27\ \text{cm}^3$. Find the area of each side.

Answer: cm^2

(0/1)

15. In a rectangle the length is 4 cm longer than the width. Which of the following expressions could give the perimeter of the rectangle? Circle your answer.

$2x + 4$

$4x + 8$

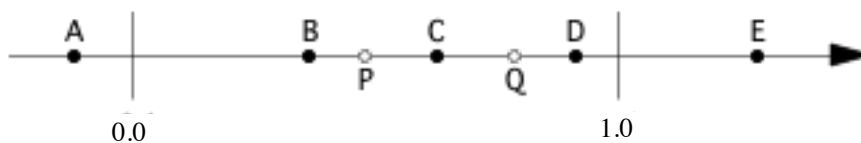
$x + 4$

$4x + 4$

$4x$

(0/1)

16. Two numbers, P and Q, are marked on the number line below. Which of the numbers A, B, C, D or E can represent the product of P and Q?



Answer:

(0/1)