

Kursprov, höstterminen 2014

Mathematics

Delprov B

1a

Elevens namn och klass/grupp

Instructions – Part B

Time for the test 60 minutes for Part B.

Aids Allowed aids on Part B are formula sheet and ruler.

Tasks This part consists of tasks to be solved without using digital devices. Answers and solutions are to be written in the test booklet. Some of the tasks require working, which is to be shown in the figure and the box next to the task. For the other tasks only the answer is required. The maximum number of points that you can get for your answer/solution is shown after each task.

Grading limits The test (Part A–D) gives a total maximum of 82 points.

Limit for test grade

E: At least 21 points.

D: At least 34 points of which at least 9 points at level C or higher.

C: At least 44 points of which at least 17 points at level C or higher.

B: At least 56 points of which at least 6 points at level A.

A: At least 65 points of which at least 10 points at level A.

Name: _____

Date of birth: _____

Program: _____ Class: _____

Illustration: Jens Ahlbom

1. How many minutes is 1.75 hours? Answer: _____ minutes (1/0/0)

2. Ali changes SEK 750 into Thai Baht (THB) and gets THB 3 000. Katarina changes SEK 500 at the same exchange rate. How much does she get? Answer: _____ THB (1/0/0)

3. A formula for calculating VAT has been entered in a spreadsheet. What will the price be including VAT?

	A	B
1	Price without VAT	800
2	Price with VAT	1.25*B1
3		

Answer: _____ SEK (2/0/0)

4. Solve the equation $15.8 = 2x - 7.2$
Show your solution.

Answer: $x =$ _____ (2/0/0)

5. Kalle is going to bake cupcakes according to the recipe below, but discovers that he only has 1 dl of sugar. According to the recipe, how many cupcakes can he bake with 1 dl of sugar?



Answer: _____ pc (1/0/0)

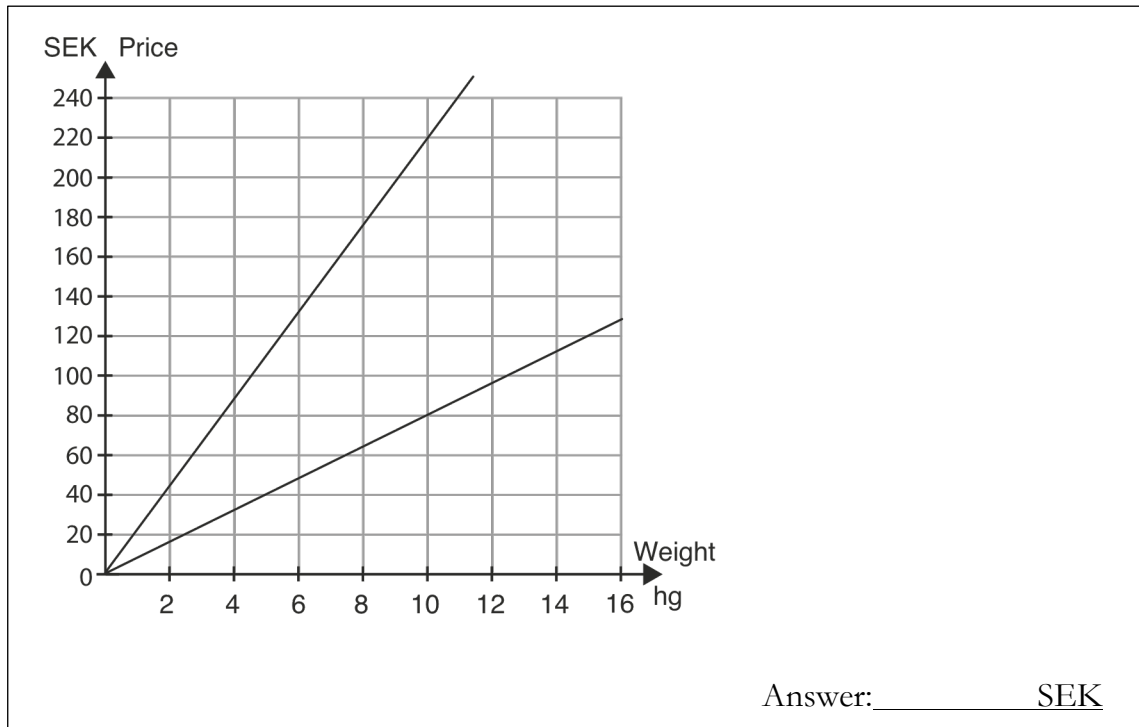
6. $\frac{2}{5}$ of a number is 6. What is the number? Show your solution.

Answer: _____ (2/0/0)

7. Lisa ran 60 m. The time was measured and stated as 10.5 seconds. What time(s) might she have completed the run in? Circle your answer/s.

10.54 10.59 10.48 10.44 10.50 (1/1/0)

8. The diagram shows how the price depends on weight, for two different kinds of coffee. How big is the difference in price per hectogram? Show your solution.



9. The original price of a product is SEK 2 000. The product's value increases by 5 % per year. y is the product's price and x is the number of years after the purchase. Which of the following relations describes the price development? Circle your answer.

$$y = 1.05 \times x + 2000$$

$$y = 2000 \times 1.05^x$$

$$y = 2000 \times 0.95^x$$

$$y = 2000 \times 1.05x$$

$$y = 2000(x + 5)$$

(0/1/0)

10. Determine the value of $3x - y$ if $x = 0.2$ and $y = -0.2$ Answer: _____ (0/1/0)

11. When Pelle received a 1.5 % salary increase, it amounted to SEK 300. How many SEK would he have received as a salary increase if the increase had been 4 %? Answer: _____ SEK (0/2/0)

12. What expression(s) are greater than 2 per mille?
Circle your answer(s).

$$\frac{2}{2\,000}$$

$$0.00201$$

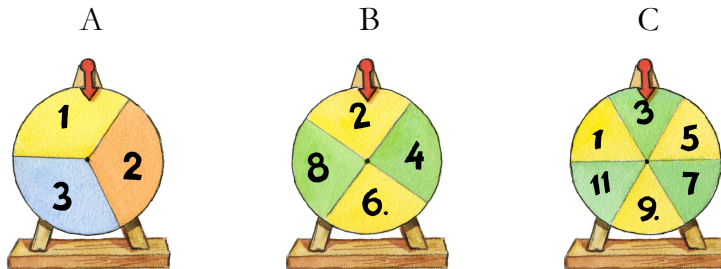
$$\frac{1}{499}$$

$$\frac{1}{501}$$

$$1.9 \times 10^{-3}$$

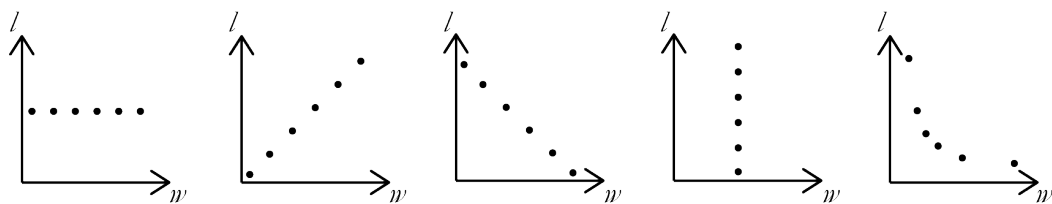
(0/1/1)

13. Svante is going to spin the three wheels A, B and C. What is the probability that the sum of what the three wheels will show is going to be odd? Show your solution.



(0/1/2)

14. Berit is going to examine various possible values of length (l) and width (w) in a rectangle with an area of 12 cm^2 . She marks different values for length and width in a diagram. What should her diagram look like? Circle your answer.



(0/0/1)

Test result – Student summary

National test in mathematics, course 1a autumn 2014

Name:	Test grade:
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	E-points		C-points		A-points		Total	
	Your score	Maximum score	Your score	Maximum score	Your score	Maximum score	Your score	Maximum score
Part A		3		4		4		11
Part B		11		8		4		23
Part C		3		6		4		13
Part D		16		13		6		35
Total		33		31		18		82

Part A	E	C	A	Score	Comment
Method and carrying through	+E _{PL}	+C _{PL}	+A _{PL}		
Reasoning	+E _R	+C _R	+A _R		
	+E _R	+C _R	+A _R		
Communication		+C _K	+A _K		
Total	3	4	4		

Part C	E	C	A	Score	Comment
Method and carrying through	+E _B +E _P +E _{PL}	+C _B +C _{PL} +C _{PL}	+A _{PL} +A _M		
Reasoning		+C _R +C _R	+A _R		
Communication		+C _K	+A _K		
Total	3	6	4		

Grading limits

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Test grade

The test grade sums up the knowledge that the student has shown on the national test. The course grade does not have to be the same as the test grade since the course grade is based on all the knowledge that the student has shown during the course.

Comments:

The form is available to download at www.su.se/primgruppen