### **NO DIGITAL DEVICES ALLOWED**

Nama	
Ivame:	•••••••••••••••••••••••••••••••••••••••

Class/Group: .....

# Part I

1. What number is the arrow pointing at?



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

2. Suppose that you take the bus at quarter to seven from Motala busstation. At what time can you expect to arrive at Linköpings resecentrum?

LINJE ANMÄRKNING	620	520 C, J	63	52	520	63	520	63	520	620	52	63	520	63	520	620	620	52
ariebergs gård		5.15	5.25	5.35		6.05		6.35			6.45							8.50
talas busstation	5.20	5.25	 E 25	 E 4E	5.45	6 15	6.15	 C 45	6.45	6.50		7.12	7.13	7.42	7.43	8.00	8.45	
tan		5.45	5.55	5.45 6.02	6.05	0.15	6.35	0.45	7.05	1	7.13	1.15	7.33	/.45	8.03	1		9.00
nsberg	l i	5.50	i	6.07	6.10	i	6.40	i	7.10	i	7.18	i	7.38	i i	8.08	i.	-i -	9.22
stad, Allévägen	5.33	1	1	1	1	1	1	1	1	7.03	1	1	1	1	1	8.13	8.58	1
nåsa	5.40	1	5.51	1	1	6.31	1	7.01	1	7.12	1	7.31	1	8.01	1	8.20	9.05	1
OCKLIKE Vekrike vänkors	5.47 ¥		5.57	1		6 37		7.07		7.20 Y		7 27		9.07	-	8.27	9.12	
ta klosters kyrka	6.00	1	1	1	i.	0.57	i.	1.07	i	7.35	1	1.31	i	0.07	i	8.40	9.25	1
mansgränd	1	i	i	x	i	i	i	i	i,	1	x	i i	i	i	i	1	1	x
mla Linköping		Х	Х	1	Х	X	Х	Х	X	1	1	Х	X	Х	X	1	1	1
ings 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
narkning		a lost tota	akaa 05	45	1.5.	244 411	Ceek O		a da bil		- Web-	Bra	att veta					
rafikerar hållplatserna	Mariebergs	garo kio os gård.	Violoata	. 15, 1.	J ron	an och R	åberga b	vila porte ro.	in via na	liplatsern	a vete-	Bing	or om tide Trafikunr	er och pri	n 0771-3	1 10 10		
Vänsterkroken, Lyckor	nas centru	m och O	dalgatar		3							eller gå in på www.ostgotatrafiken.se						
	Answer:												ver:					
	Answer:																	

Circle your answer.

- 0.115 1.15 115 1150 (1/0/0)

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5. Make an estimate of the scale used in this drawing. Show your solution in the figure and the box.



- 6. The sum of a positive and a negative number is -2.
  What two numbers might they be? Answer: and (0/1/0)
- 7. About how much is the area of the triangle? Circle your answer.

$1 \text{ cm}^2$	$5 \text{ cm}^2$	$10 \text{ cm}^2$	20 cm <sup>2</sup>	$26 \text{ cm}^2$
	) cili	10 cm	20 cm	20 Cm

Explain your thinking in the figure and the box.



(1/1/0)

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8.	Adam bought a used moped.			
	It cost 10 000 kr.			
	After x years the value of the moped is $10000 \cdot 0.8^{x}$ .			
	What is the yearly percentage decrease?	Answer:	% per year	(2/0/0)
9.	Stina runs 3 kilometers in 18 minutes.			
	What is her average speed in km/h?	Answer:	km/h	(0/2/0)

10. x + 3 = a and x - 3 = b

Write an expression for a - b and simplify it.



11. Which of the following equations has/have no solution? Circle your answer.

x+1=4 x+2=0 1+x=x-1 2=x x-5=2x-7 (0/0/1)

#### 12. Calculate:



Circle the correct alternative.
 Explain your reasoning in the box below.

2x + 3 is			<i>x</i> +2			
always les	ss than	always equ	al to alw	ays greater than	for some x-value	es greater than