$\qquad$
$\qquad$

## Part I

1. What number is the arrow pointing at?


Answer:
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?

## 5252062063 Motala-Borensberg/Fornåsa-Linköping

| Måndag till fredag |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LINJE <br> ANMĂRKNING | 620 | $\begin{aligned} & 520 \\ & \text { C, J } \end{aligned}$ | 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 |
| Motalas busstation | 5.20 | 5.25 | 1 | , | 5.45 | 1 | 6.15 | 1 | 6.45 | 6.50 | 1 | 7.12 | 7.13 | 7.42 | 7.43 | 8.00 | 8.45 | 1 |
| Stora Torget | 1 | 1 | 5.35 | 5.45 | 1 | 6.15 | 1 | 6.45 | 1 | 1 | 6.55 | 7.15 | 1 | 7.45 | 1 | 1 | , | 9.00 |
| Falkgatan | 1 | 5.45 | 1 | 6.02 | 6.05 | 1 | 6.35 | I | 7.05 | I | 7.13 | 1 | 7.33 | 1 | 8.03 | I | I | 9.17 |
| Borensberg | 1 | 5.50 | 1 | 6.07 | 6.10 | 1 | 6.40 | 1 | 7.10 | 1 | 7.18 | 1 | 7.38 | 1 | 8.08 | 1 | 1 | 9.22 |
| Österstad, Allévägen | 5.33 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 7.03 | 1 | 1 | 1 | 1 | 1 | 8.13 | 8.58 | I |
| Fornåsa | 5.40 | 1 | 5.51 | 1 | 1 | 6.31 | 1 | 7.01 | I | 7.12 | I | 7.31 | , | 8.01 | , | 8.20 | 9.05 | 1 |
| Klockrike | 5.47 | 1 | 1 | , | 1 | 1 | 1 | 1 | 1 | 7.20 | I | 1 | 1 | 1 | 1 | 8.27 | 9.12 | 1 |
| Klockrike vägkors | X | 1 | 5.57 | 1 | , | 6.37 | 1 | 7.07 | 1 | X | 1 | 7.37 | 1 | 8.07 | 1 | X | X | 1 |
| Vreta klosters kyrka | 6.00 | 1 | 1 | 1 | 1 | I | 1 | 1 | 1 | 7.35 | 1 | 1 | I | I | 1 | 8.40 | 9.25 | I |
| Köpmansgränd | 1 | 1 | 1 | X | I | I | I | , | I | I | X | I | 1 | I | , | 1 | 1 | X |
| Gamla Linköping | 1 | X | X | 1 | X | X | X | X | X | 1 | 1 | X | X | X | X | 1 | 1 | 1 |
| 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 |

C Startar från hảllplats Mariebergs gård klockan 05.15,

trafikerar hâllplatserna Mariebergs gârd, Violgatan, $\quad$| Forsätter till Saab Civila porten via hållplatserna Vete- |
| :--- |
| gatan och Råberga bro. |

[^0]Answer: $\qquad$ (1/0/0)
3. Which of the following numbers is the best approximate value for $25.6 \cdot 0.45$ ? Circle your answer.
0.115
1.15
11.5
115
1150
(1/0/0)
4. Calculate one ppm of 9.4 million.

Answer: $\qquad$ (1/0/0)
5. Make an estimate of the scale used in this drawing. Show your solution in the figure and the box.
$\square$
6. The sum of a positive and a negative number is -2 .

What two numbers might they be?
Answer: $\qquad$ and $\qquad$
7. About how much is the area of the triangle? Circle your answer.

$$
\begin{array}{lllll}
1 \mathrm{~cm}^{2} & 5 \mathrm{~cm}^{2} & 10 \mathrm{~cm}^{2} & 20 \mathrm{~cm}^{2} & 26 \mathrm{~cm}^{2}
\end{array}
$$

Explain your thinking in the figure and the box.

$\square$
8. Adam bought a used moped.

It cost 10000 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 $\mathrm{km} / \mathrm{h}$ ?
Answer: $\qquad$ (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.
$x+1=4$
$x+2=0$
$1+x=x-1$
$2=x$
$x-5=2 x-7$
12. Calculate:
$\frac{10^{102}+10^{100}}{10^{100}}$
13. Circle the correct alternative.

Explain your reasoning in the box below.

always less than always equal to always greater than for some x -values greater than

(0/1/1)


[^0]:    Bra att veta
    Frågor om tider och priser?
    Ring Trafikupplysningen 0771-21 1010
    eller gả in på www.ostgotatrafiken.se

