

## Aufnahmeprüfung 2009

### Mathematik Teil I – Lösungen

1.  $x^2$

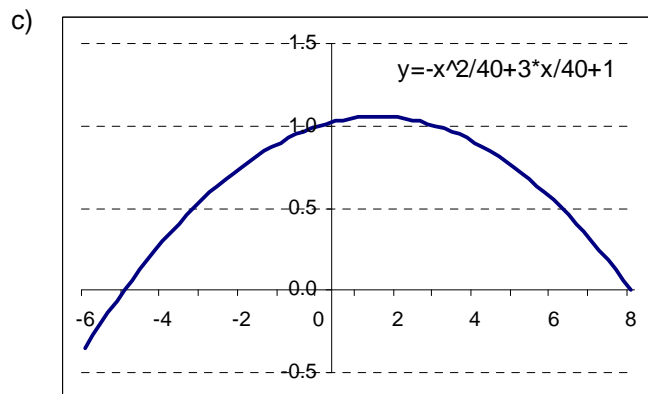
2.  $x = \frac{7}{3}$

3. a)  $\{\text{Bäriswil, Egg, Jakob}\}$       b) 10

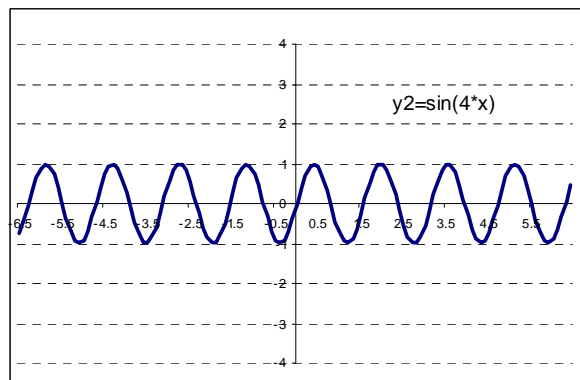
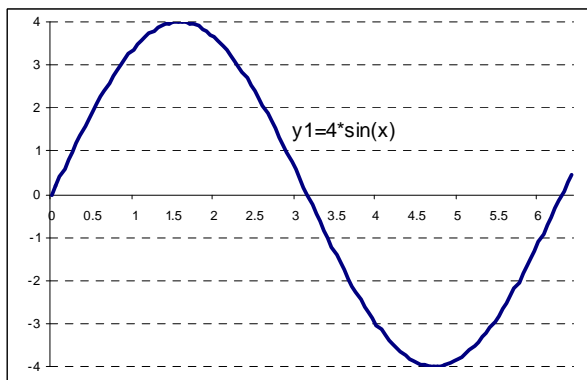
4. a)  $\sqrt{2} - \sqrt{3} + 1$       b)  $-2$

5.  $L = \{x \mid x < 0 \wedge 3 < x < 4\}$

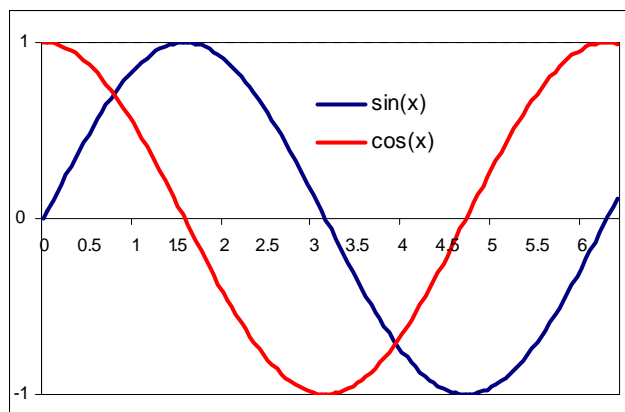
6. a)  $a = \frac{-1}{40}$     $b = \frac{-3}{40}$     $c = 1$       b)  $x = 1.5$



7. a)



b)  $x_1 = \pi/4$ ,  $x_2 = 5\pi/4$



8 a)  $\sqrt{14}$

b)  $Q(7 / -1 / 0)$