

Svar till tenta MVE425 I.

1. (a) $\mathbf{x} = \lg \mathbf{20}$

(b) $\mathbf{x} = \frac{\ln \mathbf{3}}{\ln \mathbf{2}}$

2. (a) $\mathbf{x} = \frac{\pi}{12} + \mathbf{n} \cdot \frac{\pi}{4} = \mathbf{15}^\circ + \mathbf{n} \cdot \mathbf{45}^\circ \quad (\mathbf{n} \in \mathbb{Z})$

(b) $\mathbf{x} = \mathbf{n} \cdot \pi$ eller $\mathbf{x} = \pm \frac{2\pi}{3} + \mathbf{n} \cdot 2\pi \quad (\mathbf{n} \in \mathbb{Z})$

3. Sidan $\mathbf{c} \approx \mathbf{24cm}$, vinklarna $\mathbf{B} \approx \mathbf{28}^\circ$, $\mathbf{C} \approx \mathbf{111}^\circ$.

4. $-\mathbf{2^{19}} + \mathbf{2^{19}\sqrt{3}}$

5. (a) $\frac{4}{3}$.

(b) $\frac{1}{2}$

6. Koefficienter: $\mathbf{a} = -\mathbf{5}$, $\mathbf{b} = -\mathbf{2}$. Rötter $\mathbf{z} = \mathbf{2} \pm \mathbf{i}$, $\mathbf{z} = -\frac{3}{2}$.

7. $\mathbf{a} = -\mathbf{2}$

8. De är lika.