

11.4 Lösungen

1. a) $A = \frac{\pi}{4} \cdot (d_2^2 - d_1^2)$
 b) $A = \underline{\underline{1385,44 \text{ [mm}^2\text{]}}}$

6. a) $A = \frac{r^2 \cdot \pi}{8}$
 b) $A = \underline{\underline{40212 \text{ [cm}^2\text{]}}}$

2. a) $A = \frac{d^2 \cdot \pi}{4} \cdot \left(1 - \frac{\alpha}{360^\circ}\right)$
 $U = d \cdot \left[\pi \cdot \left(1 - \frac{\alpha}{360^\circ}\right) + 1\right]$
 b) $A = \underline{\underline{123150 \text{ [mm}^2\text{]}}}$
 $U = \underline{\underline{15929 \text{ [mm]}}}$

7. a) $A = a^2 \cdot \left(\frac{4 - \pi}{2}\right)$
 b) $A = \underline{\underline{31,01 \text{ [cm}^2\text{]}}}$

3. a) $U = \underline{\underline{2 \cdot \sqrt{A \cdot \pi}}}$
 b) $U = \underline{\underline{24,25 \text{ [cm]}}}$

8. a) $A = \underline{\underline{2,66 \cdot (R^2 - r^2)}}$
 b) $A = \underline{\underline{5'536,18 \text{ [mm}^2\text{]}}}$

4. a) $A = a^2 \cdot \left(\frac{\pi - 2}{2}\right)$
 $U = \underline{\underline{a \cdot \pi}}$
 b) $A = \underline{\underline{14,27 \text{ [cm}^2\text{]}}}$
 $U = \underline{\underline{15,71 \text{ [cm]}}}$

9. a) $A = a^2 \cdot \left(\frac{\pi - 2}{2}\right)$
 $U = \underline{\underline{2 \cdot a \cdot \pi}}$
 b) $A = \underline{\underline{1155,86 \text{ [mm}^2\text{]}}}$
 $U = \underline{\underline{28274 \text{ [mm]}}}$

5. a) $A = \frac{d^2 \cdot \pi}{16}$
 b) $A = \underline{\underline{490,87 \text{ [mm}^2\text{]}}}$

10. $A = r^2 \cdot \frac{(\sqrt{8} + 2) \cdot 2 - \pi}{4}$

11.