Ergebnisse zum Übungsblatt 2

1 $A = 6{,}85 \cdot 3{,}25 = 22{,}26\,m^2$

$U = (6{,}85 + 3{,}25) \cdot 2 = 20{,}20\,m$

2 $A = 2{,}20 \cdot 4{,}45 = 9{,}79\,m^2$
$+ 1{,}60 \cdot 2{,}80 = 4{,}48\,m^2$
$14{,}27\,m^2$

$U = (2{,}20 + 1{,}60 + 4{,}45) \cdot 2 = 16{,}50\,m$

3 $A = 0{,}30 \cdot 0{,}12 = 0{,}036\,m^2$
$+ 0{,}12 \cdot 0{,}18 = 0{,}022\,m^2$
$0{,}058\,m^2$

$U = (0{,}30 + 0{,}30) \cdot 2 = 1{,}20\,m$

4 $A = 67{,}45 \cdot 49{,}00 / 2 = 1652{,}53\,m^2$

$U = 67{,}45 + 49{,}00 + \sqrt{67{,}45^2 + 49{,}00^2} = 199{,}82\,m$

5 $A = \frac{5{,}40 + 3{,}40}{2} \cdot 3{,}20 = 14{,}08\,m^2$

$U = 3{,}40 + 3{,}20 + 5{,}40 = 12{,}000\,m$
$+ \sqrt{2{,}00^2 + 3{,}20^2} = 3{,}774\,m$
$15{,}774\,m$

6 $x = \sqrt{8{,}365^2 - 3{,}91^2} = 7{,}395\,m$

$A = 7{,}395 \cdot 3{,}91 / 2 = 14{,}46\,m^2$

$U = 8{,}365 + 3{,}91 + 7{,}395 = 19{,}67\,m$

7 $A = 3{,}30^2 \cdot \pi / 4 = 8{,}55\,m^2$

$U = 3{,}30 \cdot \pi = 10{,}367\,m$

8 $A = 2{,}65^2 \cdot \pi / 2 = 11{,}03\,m^2$

$U = 2{,}65 \cdot \pi + 5{,}30 = 13{,}625\,m$

9 $A = 6{,}10 \cdot 1{,}40 = 8{,}54\,m^2$
$+ 3{,}00 \cdot 2{,}60 = 7{,}80\,m^2$
$+ 4{,}40 \cdot 1{,}45 = 6{,}38\,m^2$
$22{,}72\,m^2$

$U = (6{,}10 + 1{,}40 + 5{,}45) \cdot 2 = 25{,}90\,m$

10 $A = 0{,}30 \cdot 0{,}41 = 0{,}123\,m^2$
$- 0{,}09 \cdot 0{,}19 / 2 = 0{,}009\,m^2$
$0{,}114\,m^2$

$U = 0{,}21 + 0{,}41 + 0{,}30 + 0{,}22 = 1{,}14\,m$
$+ \sqrt{0{,}09^2 + 0{,}19^2} = 0{,}21\,m$
$1{,}35\,m$

11 $A = 3{,}50 \cdot 5{,}10 = 17{,}85\,m^2$
$+ 2{,}00^2 \cdot \pi / 2 = 6{,}28\,m^2$
$24{,}13\,m^2$

$U = 3{,}50 + 5{,}10 + 3{,}50 + 1{,}10 = 13{,}20\,m$
$+ 2{,}00 \cdot \pi = 6{,}283\,m$
$19{,}483\,m$

12 $h = 2{,}60 - \sqrt{2{,}683^2 - 2{,}40^2} = 1{,}40\,m$

$A = \frac{7{,}20 + 2{,}00}{2} \cdot 2{,}60 = 11{,}96\,m^2$
$+ \frac{1{,}40 + 2{,}60}{2} \cdot 2{,}40 = 4{,}80\,m^2$
$16{,}76\,m^2$

$U = 9{,}60 + 1{,}40 + 2{,}683 + 2{,}00 = 15{,}683\,m$
$+ \sqrt{5{,}20^2 + 2{,}60^2} = 5{,}814\,m$
$21{,}497\,m$

13 $A = \frac{6{,}83 + 4{,}30}{2} \cdot 3{,}95 = 21{,}98\,m^2$

14 $A = \frac{51{,}00 + 66{,}00}{2} \cdot 42{,}50 = 2486{,}25\,m^2$