

7. D: $\tan\theta = \frac{13}{14}$
 $\tan\theta \approx 0,9286$
 $\theta \approx \arctan 0,9286$
 $\theta \approx 42,9^\circ$
8. A: $90^\circ - 42,9^\circ = 47,1^\circ$
9. C: $13^2 + 14^2 = H^2$
 $169 + 196 = H^2$
 $365 = H^2$
 $H = \sqrt{365}$
 $H \approx 19,1$
10. A: $42,9^\circ = 42^\circ + 0,9^\circ$
 $0,9^\circ \times 60 = 54'$
 $42^\circ 54'$
11. D: $\cos\theta = \frac{1}{\sec\theta}$
12. C: $\frac{\cos\alpha}{\sin\alpha} = \cot\alpha$
13. B: $\sin 30^\circ = \cos(90^\circ - 30^\circ) = \cos 60^\circ$
14. B: $\tan 45^\circ = 1$
15. D: $\frac{10\sqrt{2}}{2} = 5\sqrt{2}$
5. C: $\tan 54^\circ = \frac{Y}{80}$
 $80 \tan 54^\circ = Y$
 $Y = 80 \tan 54^\circ$
6. A: $\tan 51^\circ = \frac{B}{80}$
 $(80)(\tan 51^\circ) = B$
 $B \approx (80)(1,2349)$
 $B \approx 98,8 \text{ m}$
7. D: $\tan 54^\circ = \frac{Y}{80}$
 $(80)(\tan 54^\circ) = Y$
 $Y \approx (80)(1,3764)$
 $Y \approx 110,1 \text{ m}$
 $110,1 - 98,8 = 11,3 \text{ m}$
8. B: $H^2 = 80^2 + 98,8^2$
 $H^2 = 6400 + 9761,44$
 $H^2 = 16\,161,44$
 $H = \sqrt{16\,161,44}$
 $H \approx 127,1 \text{ m}$
9. A: $\sin 10^\circ = \frac{Y}{100}$
 $(100)(\sin 10^\circ) = Y$
 $Y \approx (100)(0,1736)$
 $Y \approx 17,4 \text{ m}$

Test 6

1. D: $\tan 42^\circ = \frac{X}{926}$
2. A: $\tan 42^\circ = \frac{X}{926}$
 $(926)(\tan 42^\circ) = X$
 $X \approx 926(0,9004)$
 $X \approx 833,8 \text{ m}$
3. B: $\tan\theta = \frac{833,8 + 50}{926}$
 $\tan\theta = \frac{883,8}{926}$
 $\tan\theta \approx 0,9544$
 $\theta = \arctan 0,9544$
 $\theta \approx 43,7^\circ$
 $43,7^\circ = 43^\circ + 0,7^\circ$
 $0,7^\circ \times 60 = 42'$
 $43^\circ 42'$
4. B: $H^2 = 926^2 + 833,8^2$
 $H^2 = 857\,476 + 695\,222,44$
 $H^2 = 1\,552\,698,44$
 $H = \sqrt{1\,552\,698,44}$
 $H \approx 1246,1 \text{ m}$
10. B: $\sin 80^\circ = \frac{X}{100}$
 $(100)(\sin 80^\circ) = X$
 $X \approx (100)(0,9848)$
 $X \approx 98,5 \text{ m}$
11. D: $\tan 30^\circ = \frac{1}{\sqrt{3}} = \frac{1(\sqrt{3})}{\sqrt{3}(\sqrt{3})} = \frac{\sqrt{3}}{3}$
12. C: $\arcsin 0,8192 \approx 55^\circ$
13. C: $2'' \times \frac{1'}{60''} \approx 0,03$
 $21,03' \times \frac{1^\circ}{60'} \approx 0,35^\circ$
 $46^\circ + 0,35^\circ = 46,35^\circ$
14. A: $\frac{\sin\alpha}{\cos\alpha} = \tan\alpha$
15. B: $\frac{1}{\cos\alpha} = \sec\alpha$