



Triangle PAB  $\widehat{PBA} = 180 - 120 - 45 = 15^\circ$

$CN = 5 \times \sin 60^\circ = 5 \times \frac{\sqrt{3}}{2} \text{ m}$ ;  $CQ = RQ - RC = 3 - 5 \times \cos 60^\circ = 3 - 2,5 = 0,5 \text{ m}$

$BN = \frac{DB}{\cos(75^\circ)} = \frac{CQ}{\cos(75^\circ)} = \frac{0,5}{\cos(75^\circ)}$  or  $DN = \frac{CQ}{\sin(75^\circ)} \Rightarrow QB = CD = CN - DN = 5 \times \frac{\sqrt{3}}{2} - \frac{0,5}{\sin(75^\circ)}$

Now  $PB = PQ + QB = 3 + 5 + \frac{\sqrt{3}}{2} - \frac{0,5}{\sin(75^\circ)} = 3 + 4,33 - 0,52 \approx 6,81$

Distance AB  $AB^2 = 6,81^2 + 2^2 - 2 \times 2 \times 6,81 \cos 120 = 64 \Rightarrow AB = \sqrt{64} = 8$   
 Now  $AN = AB + BN = 8 + 1,93 \approx \underline{\underline{9,93 \text{ m}}}$