


## Generic Tasks: Height of Buildings

Height of the Building	Determine the height of the building!
 <p data-bbox="163 1294 981 1358">It is important to highlight in the picture which part of the building is meant.</p>	<p data-bbox="1010 309 1581 344"><b>Determine the height of the building!</b></p> <p data-bbox="1010 360 1272 387">Data to be measured:</p> <p data-bbox="1010 395 1989 422">Depending on the building, there are several possibilities to determine the height:</p> <ol data-bbox="1059 432 1541 496" style="list-style-type: none"> <li>1. With help of the intercept theorems</li> <li>2. With help of symmetry or patterns</li> </ol> <p data-bbox="1010 541 1122 568">Solution:</p> <ol data-bbox="1059 577 2033 858" style="list-style-type: none"> <li>1. One can approximate the height with help of the intercept theorem. To do so, one chooses an appropriate place, positions oneself with outstretched arm and folding rule and fixes the upper and lower end of the building, as well as a suitable piece, which can be measured directly at the building. The corresponding values are read off the folding rule and compared to the actual size. Alternatively, one can use signs or lamps whose height can be measured.</li> <li>2. One looks for regularities and patterns, like plates or tiles. These are measured in length and counted. The height is calculated by multiplication.</li> </ol> <p data-bbox="1010 868 1189 895">Possible Hints:</p> <ul data-bbox="1059 904 2018 1225" style="list-style-type: none"> <li>• Search for regularities at the building.</li> <li>• Use the plates/tiles/... to determine the height.</li> <li>• Think about how to use the intercept theorems.</li> <li>• Make a sketch of the situation.</li> <li>• Position yourself with outstretched arm and folding rule so that the folding rule covers the wall of the building and read off the values for the upper and lower end of the building. Now find a piece of the building wall that you can measure and fix these points with the folding rule. With the intercept theorems you get the height of the building.</li> </ul>