

## *Weathering and surface area*

*Calculate the total surface area for the different joint spacing shown below. The block of rock is one metre by one metre by one metre. It is cut by three sets of orthogonal joints, each with the same spacing producing a set of cubes.*

*The total volume stays the same.*

<i>length of side of cube m</i>	<i>number of joints per m</i>	<i>number of cubes</i>	<i>total number of faces</i>	<i>area of each face m<sup>2</sup></i>	<i>total area m<sup>2</sup></i>
<i>1.00</i>	<i>1</i>	<i>1</i>	<i>6</i>	<i>1</i>	<i>6</i>
<i>0.5</i>	<i>2</i>	<i>8</i>	<i>48</i>	<i>0.25</i>	<i>12</i>
<i>0.25</i>	<i>4</i>				
<i>0.1</i>	<i>10</i>				
<i>0.01</i>	<i>100</i>				
<i>0.001</i>	<i>1000</i>				