**Front view Side view** **Side view**

 **Zoomed up view**

**The clock is the same look on all sides.**





Helicopter view of Big Ben.

**Location:**

\* London, England

**General Facts:**

\* Big Ben is the nick name for the great bell of the clock at the north end of the House of Parliament.

\* Big Ben celebrated its 150th anniversary in May 2009.

\* It took 13 years to build.

**Measurements:**

\* The height of Big Ben is 96.3 metres.

\* The tower is founded on a 15 metre square shaft, at a depth of 4 metres below ground level.

\* The width of each side is 15 metres.

\* The face of the clock is 7 metres in diameter.

\* The minute hand is 4.2 metres long.

\* The hour hand is 2.7 metres long.

\* Due to ground conditions since construction the tower leans slightly to the north-west, by roughly 220 mm (22cm.)

\***The perimeter of the base of Big Ben is:**

15+15+15+15=*60 metres*

\***The area of Big Ben is:**

15x15=*225m2*

\* **The volume of Big Ben is:**

15x15x96.3=*21,667.5m3*

**Distance from New Zealand:**

\* Big Ben is, 18,800 kilometres and 18,800,000 metres from New Zealand.

**3D shapes:**

\* Rectangular prism for the base.

\* Triangular pyramid.

\* A cone top with a long needle.

**Scale drawings:**

**Bird’s Eye View: Front view:**

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**Front view side & front view zoomed up view**



**Bird’s eye view**

**Location:**

\* Seattle, Washington, America.

**General Facts:**

\* The architect of the space needle was John Graham & Company.

\* The year it was finished getting built was 1961.

\* The Space Needle is designed to withstand a wind velocity of 200 miles per hour, but earth quakes, have caused the Needle to sway.

**Measurements:**

\* It is 184 metres high at its highest point.

\* It is 42 metres wide at its widest point.

\* The foundation is 9 metres deep and 36 metres wide.

\* It contains 848 steps and 3 elevators.

\* **The perimeter of the Space Needle is:**

42+42+42+42=*168metres*

\* **The area of the Space Needle is:**

42x42=*1,764m2*

\***The volume of the Space Needle is:**

42x42x184=*324,576m3* (this is approximate because the Space Needle is a difficult shape.)

**Distance from New Zealand:**

\* The Space Needle is 11,252 kilometres and 11,252,000 metres from New Zealand.

**3D shapes:**

\* Torus.

\* Hemi sphere.

\* Wedge (two skinny wedges for sides.)

\* Truncated pyramid.

**Scale drawing:**

**Bird’s Eye view:** **Front view:**

(The front and back views are the same.)

**Side view:**