Square and Cube Roots Quiz /20

1. Evaluate the following radicals **without using a calculator**. If the answer is rational, give an exact simplified answer. If the answer is irrational, give the answer as a decimal rounded to the nearest tenth. *2 marks each*.

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| 1. $\sqrt{2025}$
 | 1. $\sqrt[3]{3375}$
 |
| 1. $\sqrt{\frac{16}{9}}$
 | 1. $\sqrt{0.04}$
 |
| 1. $\sqrt{33}$
 | 1. $\sqrt[3]{33}$
 |

1. Given $\sqrt{310}≈17.607$ evaluate $\sqrt{3.1}$ **without using a calculator**. *2 marks*
2. The area of a rectangle with length three times its width is 675 cm2. Find the dimensions of the rectangle. *3 marks*
3. The surface area of a sphere is given by $SA=4πr^{2}$ where $r$ is the radius of the sphere. Find the radius of a sphere whose surface area is $121π$ cm2. *3 marks*