Practice worksheet | Measurement and scale

# The effect of rounding and repeated approximations

Name: _____ Date: _____

6 questions | 13 marks

**1.** Compare $7 \times (\frac{1}{7})$ exactly with $7 \times 0.14$. [2 marks]

**2.** Compare $(\sqrt{50})^2$ exactly with $7.07^2$. [2 marks]

**3.** Calculate $4 \times (\frac{2}{3})$ exactly and compare with $4 \times 0.67$. [2 marks]

**4.** Find the circumference of an exact-radius 4 cm circle to 2 decimal places, rounding at the end. [2 marks]

**5.** Compare $100\sqrt{5}$ with $100 \times 2.24$, both to 2 decimal places. [2 marks]

**6.** A ruler gives 4.2 cm to the nearest 0.1 cm. Does reporting a derived area to 8 decimal places make that measurement more precise? [3 marks]