

# Scale Drawings

Name:

Date:

**INQUIRY**

**An architect's plan of NIS uses scale 1:200. The gym measures 15 cm on paper. How big is it really?**

Discuss with your partner. Write your initial ideas below:

## Key Vocabulary

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Term	Definition
Scale	The ratio between drawing length and real length.
Scale factor	The multiplier to convert between drawing and reality.

## Part A — Using Scales

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1. Scale 1:200. Drawing = 15 cm. Real length? [2 marks]

Show your working:

2. Scale 1:50,000. Real distance = 3 km. Map distance in cm? [2 marks]

Show your working:

3. A model of the Nanjing Yangtze River Bridge is 1:500 scale. The real bridge is 1,577 m long. How long is the model in cm? [2 marks]

Show your working:

## Part B — Application

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4. On a map (scale 1:25,000), the distance between two Seoul subway stations is 8.4 cm. Real distance in metres? [2 marks]

Show your working:

5. You want to draw the NIS campus (200m x 150m) on A4 paper (30cm x 21cm). What scale would you use? Show your reasoning. [3 marks]