MrF

GRADE 11 ESSENTIAL
UNIT H SCALE
CALCULATE SCALE OF MODELS

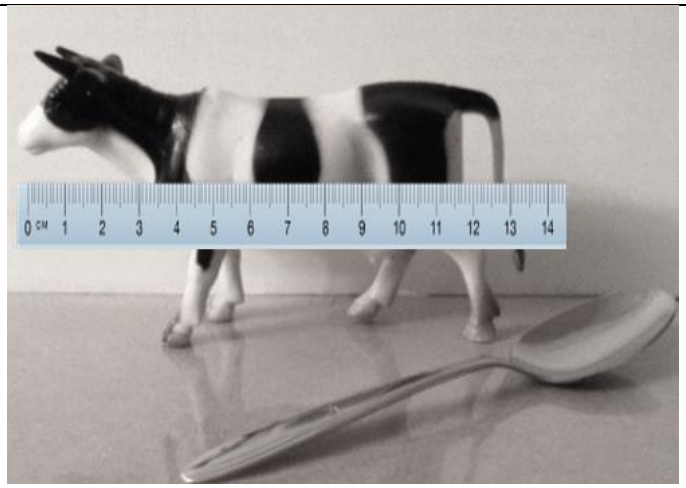
Name: _____
Date: _____

Find the scale of the items.
If shown, use the ruler in the picture (since making pictures of scale models is awkward depending on how they are cut and pasted)

Scale = $\frac{model\ length}{actual\ length}$; Eg: $\frac{1\ cm}{250\ m}$ or $1cm : 250m$. Simplify the scale so that the smaller measurement is unity.

Scale Ratio: $\frac{model\ length}{actual\ length}$ measurements are in same units. Eg: $\frac{1}{25{,}000}$ or $1 : 25{,}000$. Normally round the scale ratio to something practicable (2 significant digits).

If the *scale ratio* of the model is more than one then the model (picture) is a 'blow-up', or 'upscale'.

1. Here is a picture (model) of an actual cow. Using the ruler in the picture calculate the scale of the model cow. A real cow is 2.4 metres long. Scale: _____cm / _____m Scale Ratio: _____ (to nearest 100)	

2. Here is a picture (model) of an M&M candy dispenser. Using the ruler in the picture calculate the scale of a model M&M character.
A real M&M is 1cm wide.

Scale: _____cm / _____cm

Scale Ratio: _____
to nearest whole number

2. Here is a model of a doll house. The height of the door in the model is 8 cm. A real door is 8 feet high.

Scale: _____cm / _____ft

Scale Ratio: _____
to nearest tens.

Here is a picture of a mosquito in a book. Assume the picture in the book measures 5 cm across. An actual mosquito is really only 7.5 mm in length (tail to nose)

Scale: _____cm / _____mm

Scale Ratio: _____