![BITA logo — BUILDING INDUSTRY TECHNOLOGY ACADEMY, A program promoted by the California Homebuilding Foundation]

Lesson #2: The Architect's Scale and Scale Measurement

Objectives
Students will be able to...
▪ Measure given lengths using architect's rule/scale.

Common Core Standards
Problem Solving and Critical Thinking 5.1 Responsibility & Flexibility 7.5 CTE Pathway D3.1, 3.2 Leadership & Teamwork 9.3 RSIT 11-12.2 RLST 11-12.2

Materials
YouTube video https://www.youtube.com/watch?v=5t-fJ6w7QtY Reading an Architect's Scale Ruler Worksheet Exit Ticket: The Door Problem Worksheet

Lesson Sequence
▪ Introduce scale units to the class. You may consider including that in order to measure in scale, it helps to have a special type of rule(r). In this class, that special ruler is known as an Architects rule. It is very similar to an Engineer's ruler, except as we will see, the units of measure are standard/fractional English (like our tape measures and yardsticks) instead of hundredths, thousandths, or metrics. (5 minutes) ▪ Watch the *YouTube video* https://www.youtube.com/watch?v=5t-fJ6w7QtY (7 minutes) ▪ Answer any questions/clarify anything. (5-10 minutes) ▪ Work through *Reading an Architect's scale ruler worksheet.* Model a few problems and then have students complete a few on their own. Review problems as a class. (20 minutes). ▪ Pass out *Exit Ticket: The door problem worksheet.* Have students work

independently on this problem and turn in before leaving. (10 minutes)

Assessment

Check for understanding during whole class instruction. Call on random students to answer questions.
Use Exit Ticket data results as an assessment of student understanding of the skill.
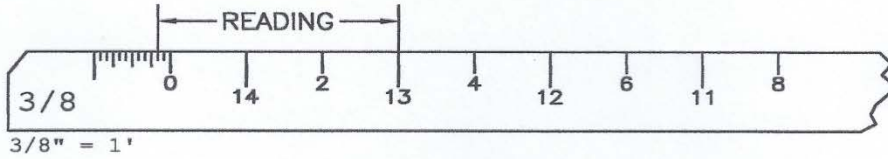
Accommodations/Modifications

Check for Understanding
One-On-One Support
Peer Support

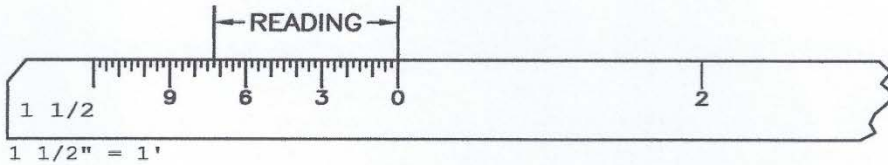# Reading an Architect's Scale Ruler – Video Worksheet
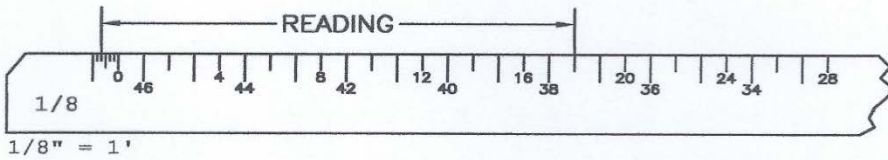
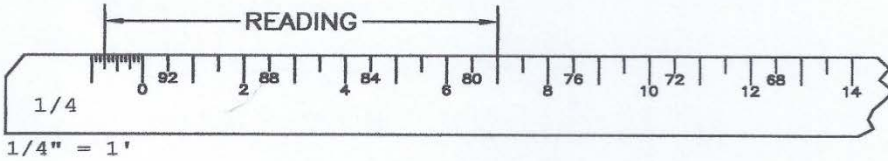Directions: Determine the readings indicated and print your answers in feet and inches.
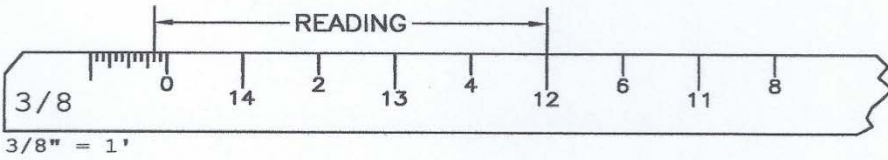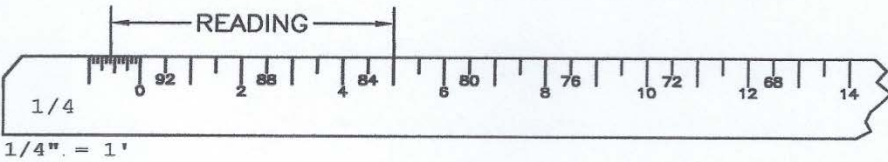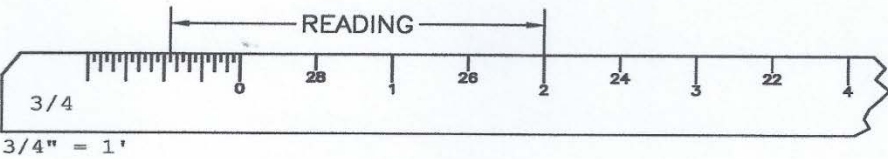

1 _____

2 _____

3 _____

4 _____

5 _____

6 _____

7 _____

8 _____

SHEET 002
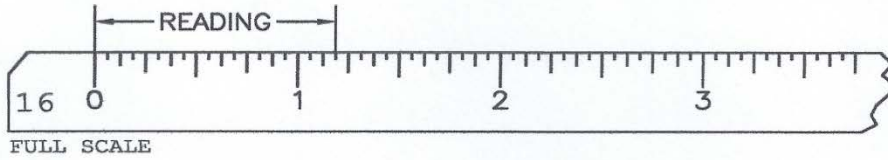
Exit Ticket: The Door Problem

Scale to Actual Measurements

I need your help to buy a door for my house. I have a scale drawing for the door I want but I am not sure of the true size. In the scale drawing the length is 4 in and the width as 7in. The scale for the door is: 1 in = 1.5 ft. What are the actual measurements of the door?

Show all your work below.

4 inches

Scale

1 inch = 1.5ft

7 inches