



Name: \_\_\_\_\_ Grade: \_\_\_\_\_

**MEASUREMENT & NUMERACY**

**READING A RULER**



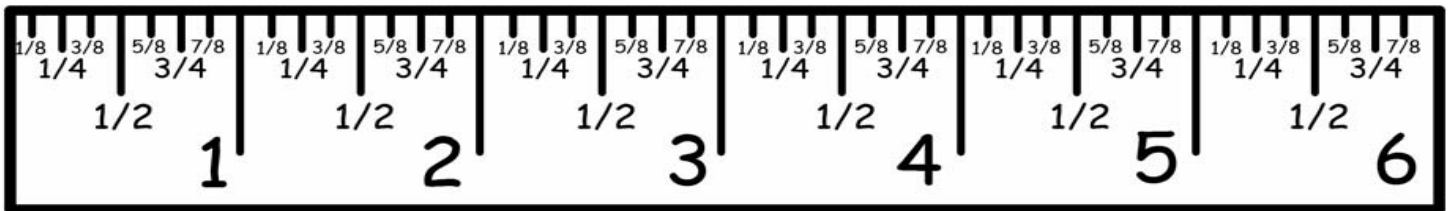
Imperial Measures of Length - EARLY ORIGINS

The British Imperial System evolved from the thousands of Roman, Celtic, Anglo-Saxon, and customary local units employed in the Middle Ages.

One notable story is that the current system originated with a Scottish king (King David I), who determined that an inch will be the width of his thumb, a foot was the length of his own foot and a yard would be the length of his stride.

Reading and using an Imperial Ruler

Look at the ruler below; there are eight equally spaced lines from the beginning of each inch to the end of it. The lengths of these lines differ and indicate different fractions or parts of an inch. The larger the unit of measure the longer the line will be on the ruler or tape measure. Full inches (1") are the longest followed by increments of half inches (1/2"), quarter inches (1/4") the eighth inches (1/8") etc.



When reading a measurement determine the value of each unit, **count** the lines then *reduce* the fraction to its lowest form.

➤ if the *units* are in 1/8" of an inch increments and 6 out of 8 *lines* are covered then our measurement is **6/8"**.

The **bottom number** is called the **DENOMINATOR**.  
It tells us how many parts the whole consists of.

$$\frac{3}{4}$$

← points to the 3 (numerator)  
→ points to the 4 (denominator)

The **top number** is called the **NUMERATOR**.  
It tells us how many parts out of the whole are used.

When using a ruler, you can only **reduce** or **add** fractions when **both** the numerator and the denominator are **even** so... 6/8" can be reduced (*both halved*) to \_\_\_\_". We *can't* reduce any further because one of our numbers is no longer even so this is the simplest/lowest form. If we wanted to add 3/8" with 1/4" we would have to make the denominators the same. We can't halve 3/8" because both the numerator and the denominator are not even so we must double 1/4" to make them like units. So our question ends up looking like:

**3/8" + 2/8" = \_\_\_\_"** (which is the same thing just written differently).

Find the length of each bar, write your answer in the space provided on the right. (Rulers are not actual length)

