## Section 2.3

Estimating Length

## Try These

Name a metric unit and an imperial unit you would use to estimate each measurement
i. The height of a tree meters yards
ii. The width of a book
centimeters inches
iii. The diameter of a golf ball
millimeters
inches
iv. The distance from Winnipeg
kilometers
miles to Vancouver

## Notes on Estimating Length

- To estimate a length, you can compare it to a personal referent.
- A referent can be a length or distance that you can easily remember in either metric or imperial units.
- For example, 1 cm is about the width of your little finger. 1 foot is a little longer than your foot.


# 1. List some Metric referents based on everyday objects 

| Length | Referent |
| :--- | :--- |
| 1 mm | The height of a coin |
| 1 cm | The width of your pinky finger |
| 10 cm | Width of mouse pad on Mac air book |
| 1 m | Height of my bag on wheels |

# 2. List some Imperial referents based on everyday objects 

```
Length Referent
1 in. Length of thumb to first knuckle
1 ft The length of my foot from heal to big toe
1 yd The height of my bag on wheels
```


## Example (page 47)

- Estimate the length and width of a $\$ 5$ bill using an imperial referent and a metric referent
- Solution
A. What referents will you use?
- Imperial: Inch metric: 1 cm and 10 cm
B. What are your estimates

| Measurement System | Length | Width |
| :--- | :--- | :--- |
| Imperial | About 6 inches | About 3 inches |
| Metric | About 14 cm | About 7 cm |

## Activity and Assignment

- Using your referents (metric and imperial) measure the following
i. The height of your desk
ii. The width of one of the white boards
iii. The length and width of your duo-tang
iv. The length and width of your textbook
v. The length of your pencil/pen
vi. The height of the classroom door
vii. The width of the classroom window
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