Math 10 N Douglas

Section 1.1 Imperial Measures of Length

| Imperial Unit | Abbreviation | Referent           | Relationship between units  |
|---------------|--------------|--------------------|-----------------------------|
| Inch          | in.          | Thumb length       |                             |
| Foot          | tt.          | Foot length        | Ift = 12in                  |
| Yard          | yd.          | Arm Span           | lyd=3ft lyd=36 in.          |
| Mile          | mi.          | Dist. walked in 21 | Dmins Ini = 1760yd Ini = 52 |

Notes: Imperial units are recorded using fractions NOT decimals

Example 1: Find the length of each, using fractions.

a) Textbook

$$8\frac{14}{16} = 8\frac{7}{8} in$$

$$\frac{12}{5} \frac{12}{16} = 5\frac{3}{4} = 10$$

Example 2:

1) Convert 5yd to:

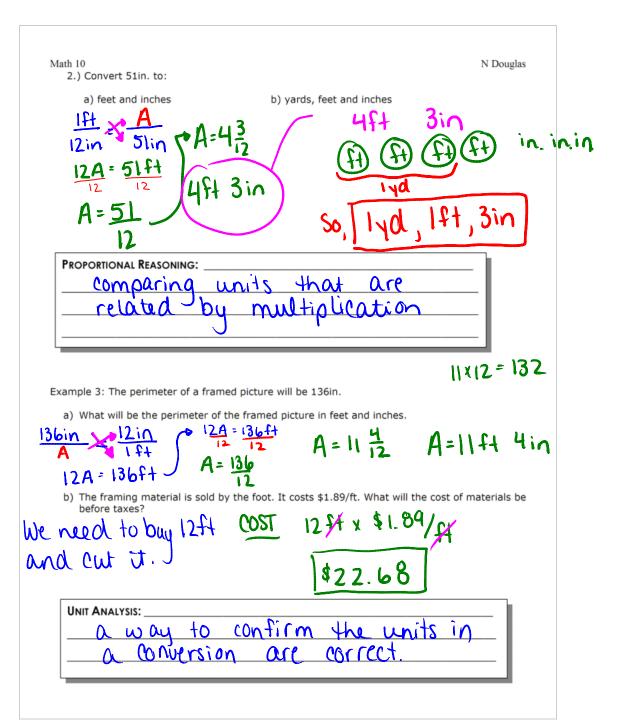
a) feet



b) inches

$$\frac{14d}{36in} \times \frac{54d}{8}$$

$$180in$$

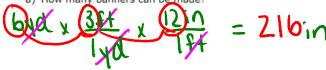


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Show the relation between inches and feet:

Example 4: The school council has 6yd of fabric that will be cut into strips of 5in wide to make decorative banners for the school dance.

a) How many banners can be made?



b) Use unit analysis to verify the conversions.

Example 5: A map of Alaska has a scale of 1: 4 750 000. The distance on the map between Paxson and the Canadian border is  $3\frac{11}{16}$  in. What is the distance to the nearest mile?

lin on the map = 4750000 inches in reality 1 mi = 5280 fl

3116 in -> 311 (4750000) = 17515625 in 12A = 17515625
MAP REALITY

HW: p. 11 - 12 # 4, 5, 7, 8, 11 - 16, 20 (4, 5, 7, 8, 1)