ALG 2 BELLWORK
THURSDAY, OCT 16, 2014

2. A distress call from a camper is received by 2 ranger stations. Station #1 is 10 miles due west from Station #2. The rangers determine that the camper is located as shown in the diagram below. How many miles is the camper from Station #2 ?

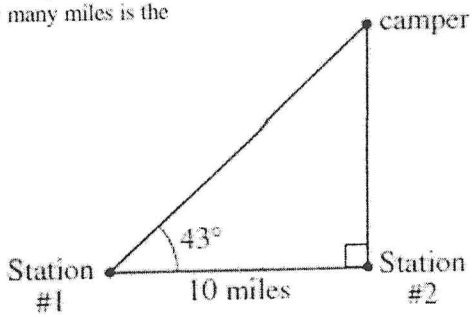
F. $\frac{10}{\sin 43^\circ}$

G. $\frac{10}{\cos 43^\circ}$

H. $10 \sin 43^\circ$

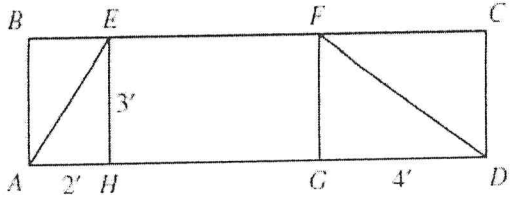
J. $10 \cos 43^\circ$

K. $10 \tan 43^\circ$



3. Distances marked on the figure below are in feet. Points B, E, F, and C are collinear as are points A, H, G, and D. If the area of rectangle $ABCD$ is 33 square feet and $\overline{EH}$ and $\overline{FG}$ are each perpendicular to $\overline{AD}$, what is the area, in square feet, of trapezoid $AEFD$?

A. 15
B. 21
C. 24
D. 27
E. 48



4. In the figure below, the lengths of line segments are given in feet. If $\overline{BC}$ is parallel to $\overline{DE}$, how many feet long is $\overline{AE}$?

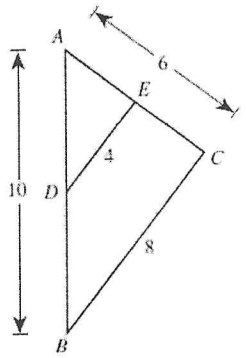
A. $2\sqrt{21}$

B. $2\frac{2}{5}$

C. 3

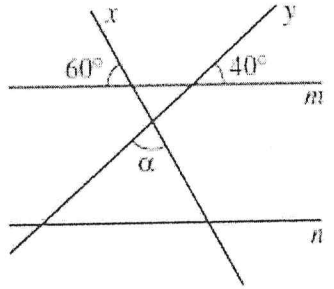
D. $6\frac{2}{3}$

E. 12



5. Lines m and n below are parallel, and lines x and y are transversals. What is the value of α ?

A. 60°
B. 70°
C. 80°
D. 100°
E. 110°



ALG 2 BELLWORK
THURSDAY, OCT 16, 2014

SOHCAHTOA

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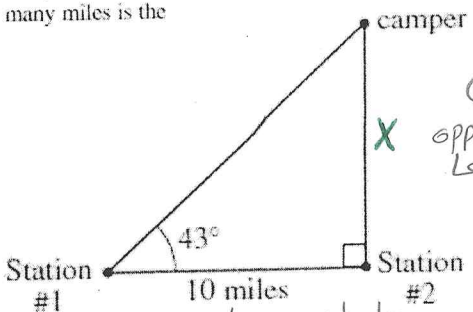

O opposite Leg

adjacent leg A

$10 \cdot \tan 43^\circ = \frac{x}{10} \cdot 10$

$x = 10 \tan 43$

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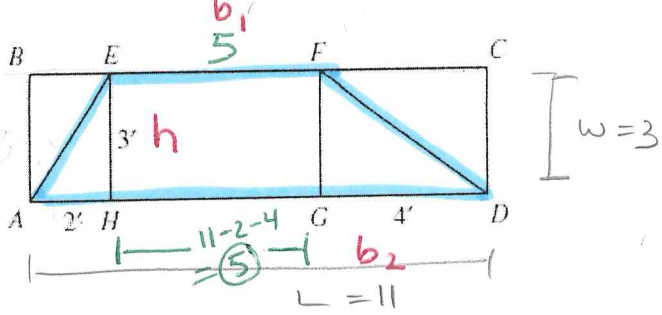

Area of a Trapezoid

$A = \frac{1}{2}(b_1 + b_2)h$

$= \frac{1}{2}(5+11)3$

$A = 24$

$L \times w = 33$

$L \cdot 3 = 33$

$L = 11$

4. In the figure below, the lengths of line segments are given in feet. If $\overline{BC}$ is parallel to $\overline{DE}$, how many feet long is $\overline{AE}$?

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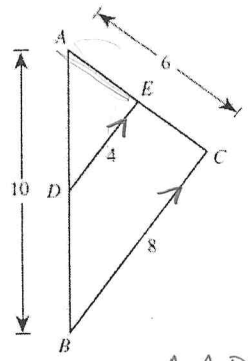

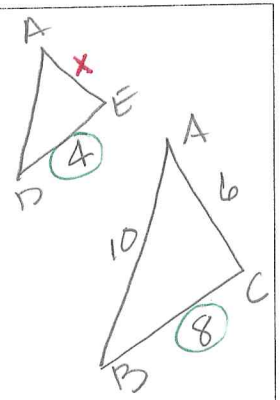

$\triangle ADE \sim \triangle ABC$

$\frac{4}{8} = \frac{x}{6}$

$x = 3$

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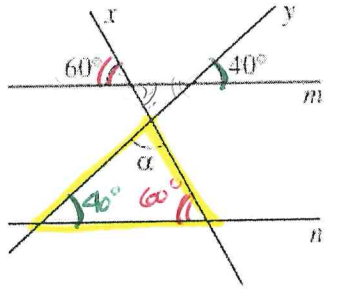

corresponding ∠'s are ≅

$\alpha = 180 - 60 - 40$

$\alpha = 80°$