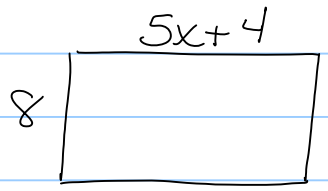
P2 Q&A

Note Title 2/10/2016

11.1 : 15



$84 < A < 124$

$84 < (8(5x+4)) < 124$

$84 < (40x+32) < 124$

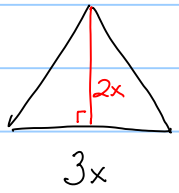
$-32 \quad -32 \quad -32$

$\frac{52}{40} < \frac{40x}{40} < \frac{92}{40}$

$\frac{13}{10} < x < \frac{23}{10}$

11.2

(16)



base : alt

3 : 2

$A = 48$

$\frac{3x(2x)}{2} = 48$

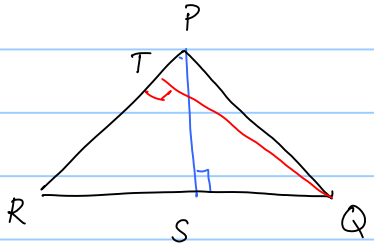
$3x^2 = 48$

$x^2 = 16$

$x = 4$ (why not -4 ? can't have -length.)

Then $3x = 12$ & $2x = 8$

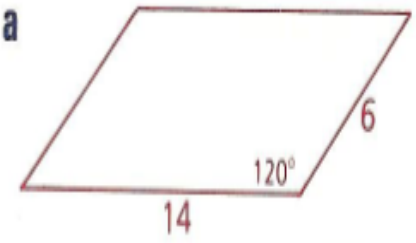
(18)



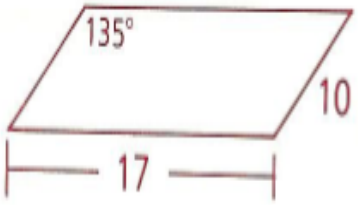
$QT = 12$, $PR = 15$ } $QT \perp PR \therefore A_{\triangle PQR} = \frac{1}{2} 12 \cdot 15 = 90$

21 Find the area of each parallelogram to the nearest tenth.

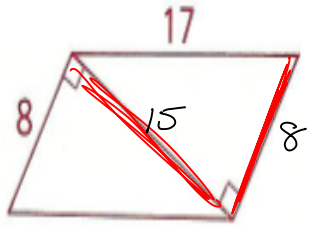
a



b



c

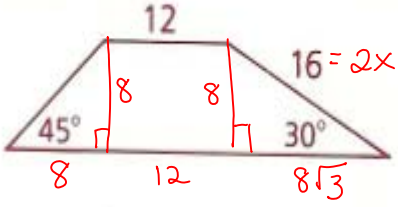


$8(15) = 80 + 40$

$= 120$

22

c



$b_1 = 12$

$h = 8$

$b_2 = 20 + 8\sqrt{3}$

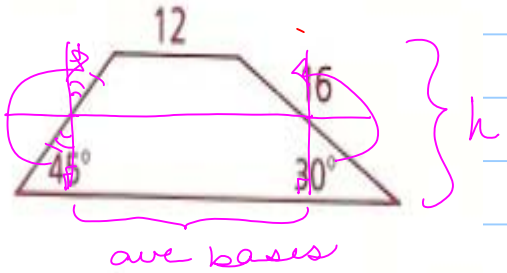
$$A_{TRAP} = \left(\frac{b_1 + b_2}{2}\right) h = \left(\frac{12 + 20 + 8\sqrt{3}}{2}\right) 8$$

$$= \left(\frac{32 + 8\sqrt{3}}{2}\right) 8$$

$$\left(\frac{2(16 + 4\sqrt{3})}{2}\right) 8$$

$$\boxed{128 + 32\sqrt{3}}$$

c



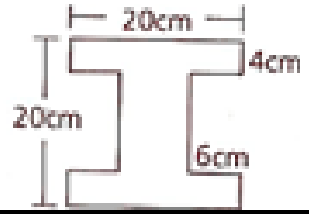
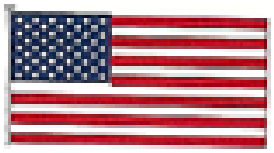
AMDG

Name Ms. Kresovic

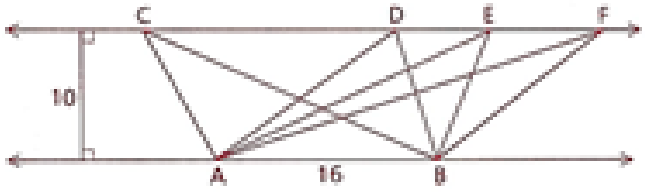
Acc Geo – 2 11.1-2 Homework Check/Pop Quiz

You may use your homework, but not your book. Each problem is worth 3 points; 12 pts total. Record your answer in the rightmost column.

11.1

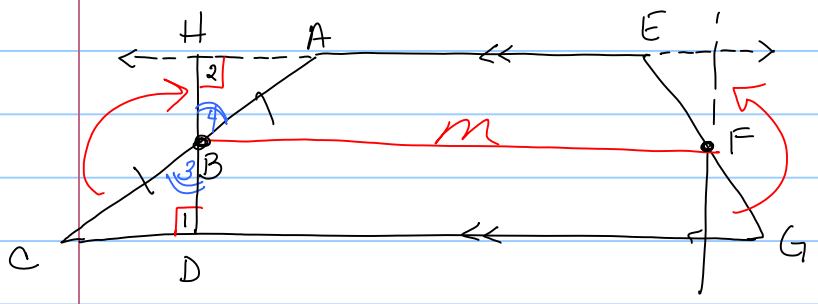
9 A cross section of a steel I-beam is shown. Assume right angles and symmetry from appearances. Find the area of the cross section. 	9
*not assigned: **17** A flag has dimensions 65 by 39. Each short stripe has a length of 39. What fractional part of the flag is red? 	17

11.2

* not assigned **14** Lines $\overleftrightarrow{CF}$ and $\overleftrightarrow{AB}$ are parallel and 10 mm apart. Several triangles with base $\overline{AB}$ and a vertex on $\overleftrightarrow{CF}$ have been drawn below. Which triangle has the largest area? Explain. 	14
22 Find the area of each trapezoid by dividing it into other figures (rectangles and triangles or parallelograms and triangles). **a** 	22a
b 	22b
c 	22c

11.3: Area of Trapezoid
11.4: Area of Kites and Related Figures

11.3: 7-14, 16, 17 & 11.4: 4-8, 10



G: B&F are mdpts
$\overleftrightarrow{AE} \parallel \overleftrightarrow{DG}$
$\overleftrightarrow{BD} \perp \overleftrightarrow{DG}$

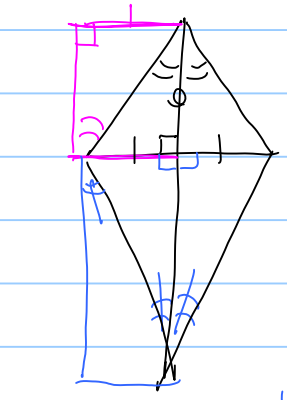
P: $\triangle BDC \cong \triangle BHA$

1. B&F are mdpts $\overleftrightarrow{AE} \parallel \overleftrightarrow{DG}$ $\overleftrightarrow{BD} \perp \overleftrightarrow{DG}$	1. Given
2. $\angle 1$ rt $\angle$	2. $\perp \Rightarrow$ rt $\angle$
3. $\angle 2$ rt $\angle$	3. If line $\perp$ to 1 of 2 $\parallel$ lines then $\perp$ to other.
4. $\angle 1 \cong \angle 2$	4. rt $\angle$s $\Rightarrow \cong \angle$s
5. $\angle 3 \cong \angle 4$	5. Vert $\angle$s $\Rightarrow \cong \angle$s
6. $\overline{AB} \cong \overline{BC}$	6. mdpt $\Rightarrow \cong$ segs
7. $\triangle BDC \cong \triangle BHA$	7. AAS (4 5 6)

A similar argument can be made for the other side of the trap $\therefore A_{trap} = Mh$

$$A_{TRAP} = \underbrace{\left(\frac{b_1 + b_2}{2}\right)}_{M} h$$

Kites



diag

½ diag

$$A_{KITE} = \frac{1}{2} d_1 \cdot d_2$$