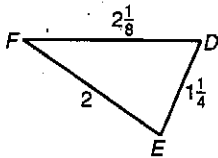


Show all work on separate sheet of paper. Bring to Mrs. Brown before or day of test for extra credit.

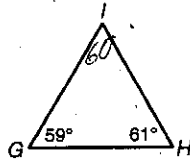
5.5

1. Write the angles from smallest to largest



$\angle F, \angle D, \angle E$

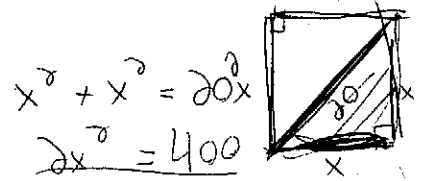
2. Write the sides from largest to smallest



GI, GH, HI

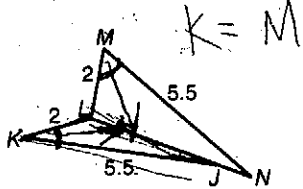
3. Two sides of a Δ are 7 and 13. What are possible lengths for 3rd?

$6 < 3^{rd} < 20$



5.6

4. Compare $\angle K$ and $\angle M$

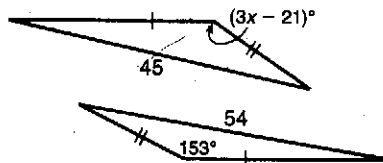


$\angle K = \angle M$

$\angle K = \angle M$

(Hinge Theorem)

5. Find range for x



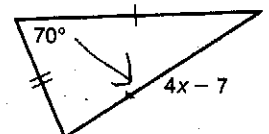
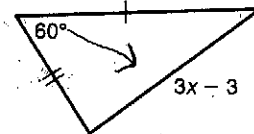
$0 < 3x - 21 < 153$

$21 < 3x < 174$

$7 < x < 58$

6. Find range for x

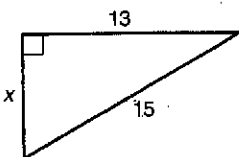
$x > 4$



$4x - 7 > 3x - 3 > 0$
 $4x - 7 > 3x - 3$
 $x > 4$
 $3x - 3 > 0$
 $3x > 3$
 $x > 1$

5.7

7. Solve for x



$x^2 + 13^2 = 15^2$

$x^2 + 169 = 225$

$\sqrt{x^2} = \sqrt{56}$
 $x = 7.48$

8. Classify triangle by angles if sides are 16, 7, and 12.

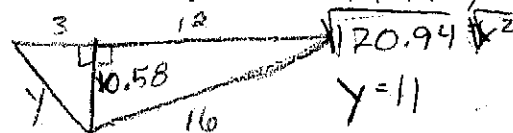
$7^2 + 12^2 = 16^2$

$49 + 144 = 256$

$193 = 256$

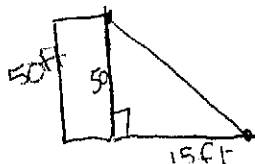
obtuse

9. Solve for y



$x^2 + 12^2 = 16^2$
 $x^2 + 144 = 256$
 $\sqrt{x^2} = \sqrt{112}$
 $x = 10.58$

10. A man is standing at the top of a 50 ft. lighthouse. His wife is standing 15 feet away from the base of the lighthouse. If he throws her the car keys, how far did the keys travel?



$50^2 + 15^2 = c^2$

$2500 + 225 = c^2$

$\sqrt{2725} = c$

$x = 52.20 \text{ ft.}$

5.8

1. $x = 4$

$y = 6.93$



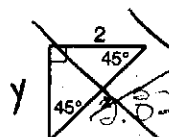
$\frac{8}{x} = \frac{1}{\sqrt{3}}$

$2x = 8$

$x = 4$

$3y = 8\sqrt{3}$

$y = 6.93$



$\frac{2}{x} = \frac{1}{1}$

$x = 2$

$\frac{2}{x} = \frac{1}{\sqrt{2}}$

$x = 2\sqrt{2}$

$x = 2.83$

12. $x = 2.83, y = 2$