Bryant - Geometry Chapter 4A Review Name: Mikey

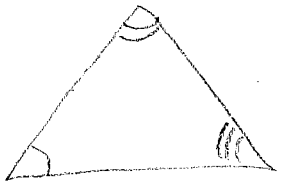
Key Things to Know

1. Do you know your vocabulary on the graphic organizer?

YES!!

2. What do all of the angles in a triangle add to equal?

180°



3. How can I find an exterior angle?

Add the two remote interior angles.

4. If a triangle is equilateral what else do we know?

- All angles are congruent
- All angles measure 60°

5. What must be true regarding the side lengths in a triangle? For example....would sides of 2, 3, and 6 form a triangle?

The sum of the two shorter sides must be greater than the longest side in order to create a triangle.

6. Label the parts of an isosceles triangle...what is true regarding the base angles?

- Base angles are congruent.
- Legs are congruent.

7. Write impossible or possible below the following situations:

a) isosceles right triangle — Possible

b) equilateral, scalene triangle — Impossible

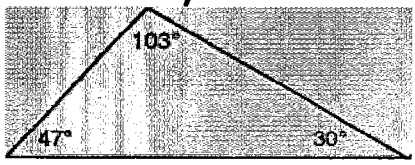
c) obtuse scalene triangle — possible

d) acute isosceles triangle — Possible

e) acute, obtuse triangle — Impossible

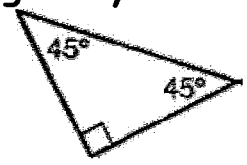
8. Classify the following triangles by their sides and angles:

a)



Sides: Scalene
Angles: Obtuse

b)



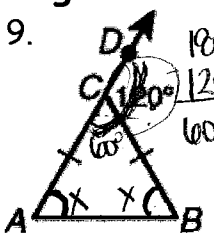
Sides: Isosceles
Angles: Right

c)

Sides: Equilateral
Angles: Equiangular

Angles in a Triangle:

$9x+2 = 23+5x-1$ #1

9. 

180 − 120 = 60°

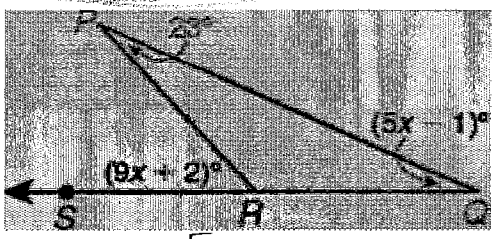
180 − 60 = 120 ÷ 2

$120 = x+x$

$\frac{120}{2} = \frac{2x}{2}$

$x = 60$

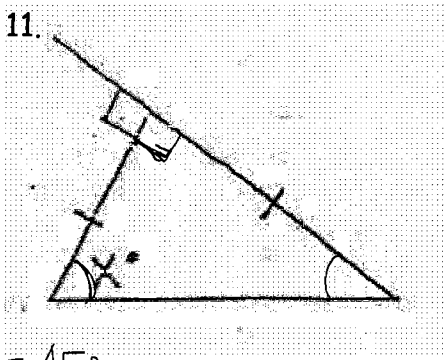
Find $m\angle B$ = 60°

10. 

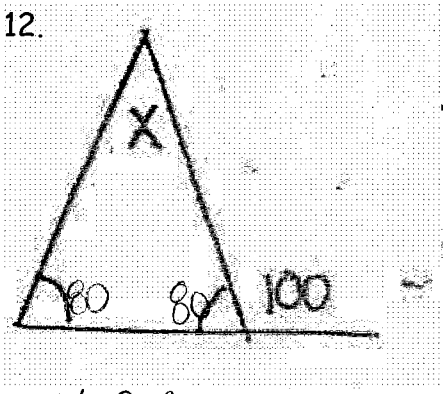
Find x = 5

and $m\angle SRP$ = 47°

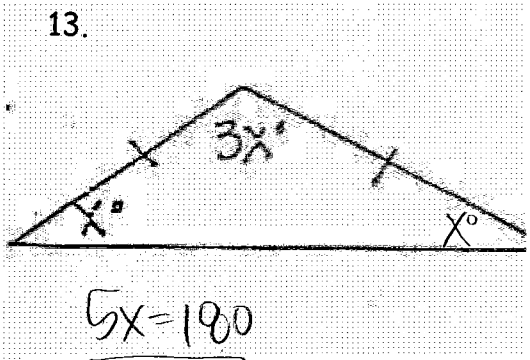
Directions: Find x.

11. 

$X = 45°$

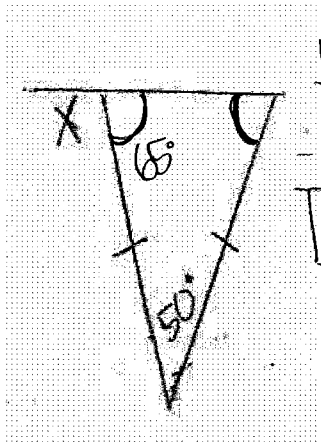
12. 

$X = 20°$

13. 

$5x = 180$

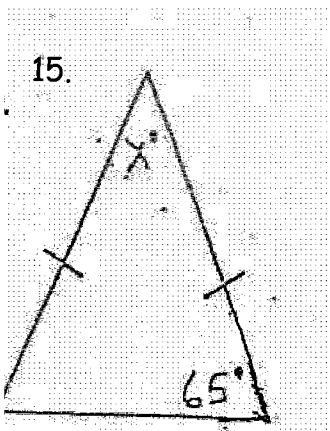
$x = 36$

14. 

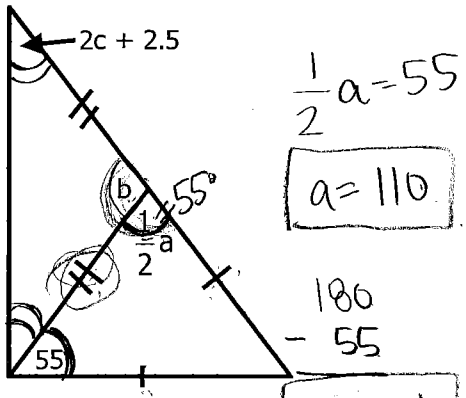
17

180 − 65

$115° = x$

15. 

$x = 50$

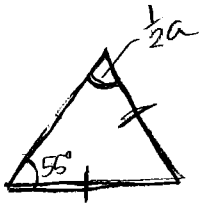
16. 

$\frac{1}{2}a = 55$

$a = 110$

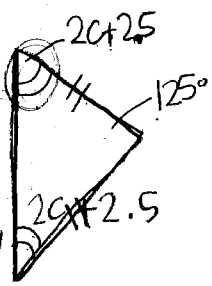
180 − 55

$125 = b$



180 − 125

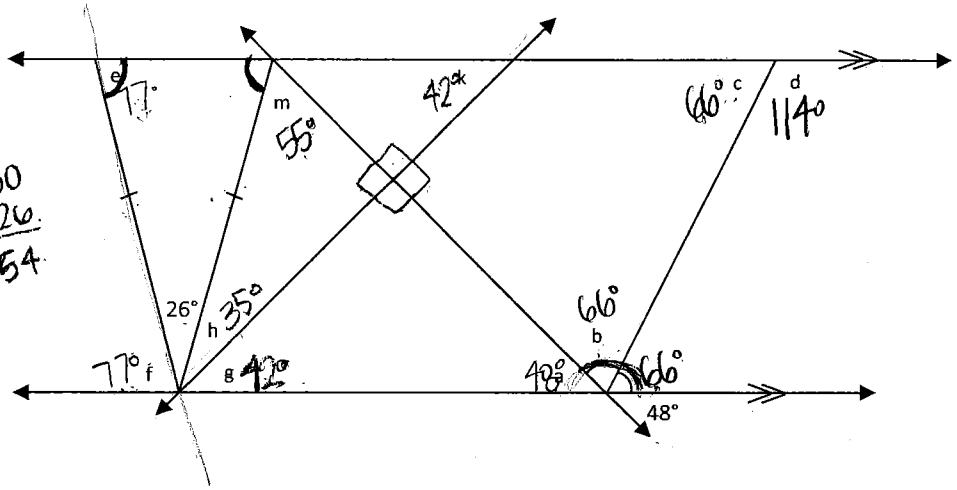
55 ÷ 2 = 27.5



$2c + 2.5 = 27.5$

$c = 12.5$

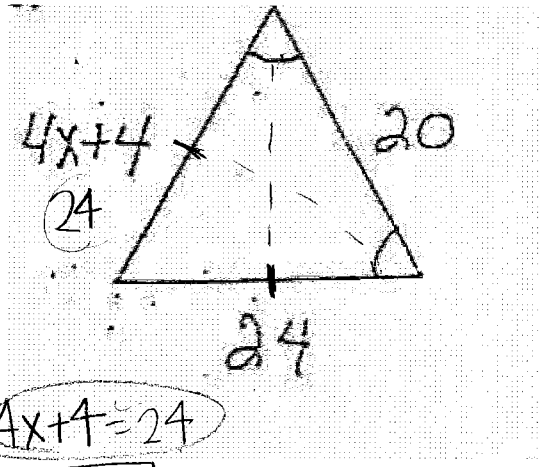
17.



Side Relationships

Directions: Find x and determine the each side length.

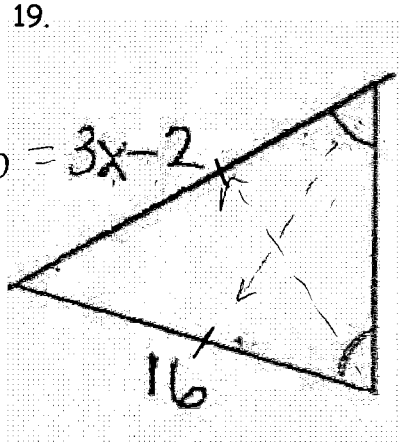
18.



$4x+4=24$

$x=5$

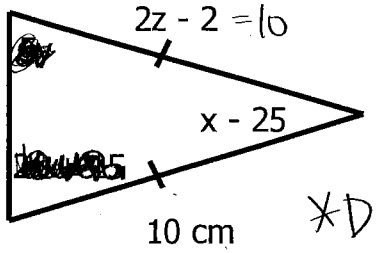
19.



$3x-2=16$

$x=6$

20.

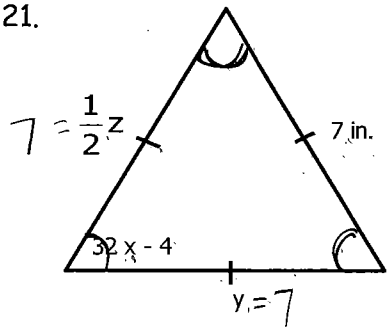


*Don't worry about x & y

$2z-2=10$

$z=6$

21.



$\frac{1}{2}z=7$

$z=14$

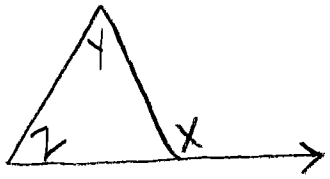
$32x-4=60$

$32x=64$

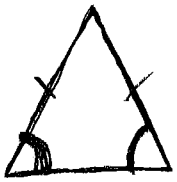
$x=2$

- Exterior Angles Thm:

  $m\angle X = m\angle Y + m\angle Z$



- Linear pairs
- Algebra: writing & solving equations
- Isosceles Triangles



- All $\angle$s in a $\triangle$ add to 180°