Write the Pythagorean Equation for each problem. Write the missing side in simplified radical form. Determine if the sides form a Pythagorean triple. If so, name the family.

1. Equation:	2. Equation:	3. Equation:	4. Equation:
Equation.	Equation.	Equation	Equation.
c = Triple?	b = Triple?	c = Triple?	c = Triple?
20 c	24 26 b	70 240 c	c 24
Triple Family	Triple Family	Triple Family	Triple Family
5. Equation:	6. Equation:	7. Equation:	8. Equation:
b = Triple?	a = Triple?	c = Triple?	a = Triple?
b 8	4 8 a	72 c	45 a
Triple Family	Triple Family	Triple Family	Triple Family

9.	10.	11.	12.
Equation:	Equation:	Equation:	Equation
b = Triple? 96 100 b Triple Family	a = Triple? 15 39 a Triple Family	b = Triple? b  40  85  Triple Family	a = Triple? 35a 28 Triple Family
13. Equation	14. Equation	15. Equation	16. Equation
c =	c =	c =	a =
Triple?	Triple?	Triple?	Triple?
25 c 60	c 3	5 c	2.5 0.7 Triple Family
Triple Family	Triple Family	Triple Family	Triple Fairing

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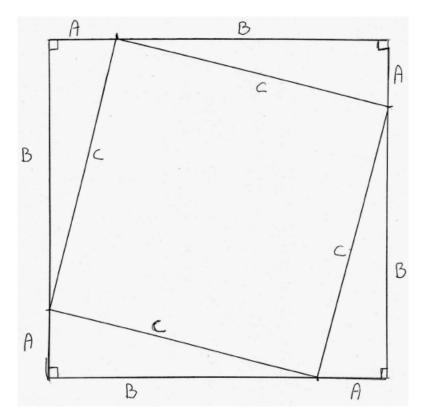
Use the converse of the Pythagorean theorem to determine if each triangle is acute, right, or obtuse. Show your work to justify your answer.

17. 11, 12, 16	18. 6, 8, 9	19. 45, 60, 75
20. 11, 60, 61	21. 6, 7, 12	22. 5, 12, 13

- 23. Multiply (2x + 3)(x 4)
- 24. Multiply (a + b) (a b)

25. Multiply (a + b) (a - b)

26. Multiply (2x + 3y) (6x + y)



- 1. Find the area of the entire shape.
- 2. a) Find the area of the four right triangles and the rhombus.
  - b) How do you know that the rhombus is a square?
- 3. Prove the Pythagorean Theorem.