Pythagorean Work Sheet 50 pts

Name: _____

<u>Review of triangles</u>:

Two sides of a triangle must be greater than the third
  (add smallest sides up and compare to largest)
Largest side is opposite the largest angle
Given two sides, third side must lie between   Lg-Sm < 3rd side < Lg+Sm

Largest angle opposite

1.	2, 3, 7	Y or N	_____	5.	2, 3	____< n < ____
2.	3, 5, 2	Y or N	_____	6.	3, 5	____< n < ____
3.	5, 8, 4	Y or N	_____	7.	8, 5	____< n < ____
4.	8, 8, 8	Y or N	_____	8.	8, 12	____< n < ____

<u>Pythagorean Problems</u>: $a^2 + b^2 = c^2$

Use when given two sides of a right triangle and looking for a third side
Hypotenuse, always the largest side, (C) is not always the missing side!!

<u>*Pythagorean Triples*</u> are three integers (no decimals or fractions) that solve the
     Pythagorean Theorem.

Do these sets of three numbers make a right triangle and a Pythagorean Triple?

	Right Triangle	Pythagorean Triple
9. 3, 4, 5	Y or N	Y or N
10. 5, 12, 13	Y or N	Y or N
11. 7, 9, 5	Y or N	Y or N
12. 25, 24, 7	Y or N	Y or N
13. 3/8, 1/2, 5/8	Y or N	Y or N
14. 0.6, 0.8, 1	Y or N	Y or N

Pythagorean Problems: $a^2 + b^2 = c^2$

Use when given two sides of a right triangle and looking for a third side
Hypotenuse, always the largest side, (C) is not always the missing side!!

15.

12

x

8

16.

24

17

y

17.

9

12

x

18.

y

12

5

19.

12

x

9

20.

y

20

y