06 & 08 - Rational Exponents and Geometry, Homework

1	$8^{\frac{2}{3}} =$
2	$\left(\frac{16}{25}\right)^{\frac{3}{2}} =$
3	$\left(-\frac{8}{27}\right)^{-\frac{1}{3}} =$
4	$-16^{\frac{1}{4}} =$
5	$(25x^4y^6)^{\frac{1}{2}} =$
6	$(27x^6)^{\frac{2}{3}} =$
7	Find the hypotenuse of the right triangle with legs: 6 and 8.
8	Find the third side of the right triangle with one leg of length 3 and hypotenuse of length 7.
9	Are the lengths : 13, 12, and 5 the sides of a right triangle?
10	Simplify: $x^{\frac{4}{3}} x^{\frac{2}{7}}$

Answers : 1) 4 2) $\frac{64}{125}$ 3) $-\frac{3}{2}$ 4) -2 5) $5x^2y^3$ 6) $9x^4$ 7) 10 8) $\sqrt{40}$ 9) yes 10) $x^{\frac{34}{21}}$