Mathematics Assignment No.-01- Squares and Sq. root

Q1. Is 256 a perfect square?

Q2. Show that 3600 is a perfect square.

Q3. Is 2100 a perfect square, explain?

Q4. Using prime factorization method, find the square root of the following numbers if exist

(i) 2048 (ii) 4096 (iii) 3549. (iv) 11025

Q5 Find Pythagorean triplet, one of whose members is

(i) 6 (ii) 4 (iii) 8

Q6. Express the perfect square number as sum of odd numbers

(i) 49 (ii) 64.

Q7. Without actual addition, find the sum (i) $1+3+5+7+9$

(ii) $1+3+5+7+9+11+13 \ldots 21$

Cont-Pg-2.

Q8. How many numbers lie between squares of the following numbers?

(i) 10 and 11 (ii) 20 and 21

Q9. Using the pattern, find the missing number.

(i) $3^2 + 4^2 + 12^2 = 13^2$

(ii) $4^2 + 5^2 + \dots = 21^2$

(iii) $5^2 + \dots + 30^2 = 31^2$

(iv) $6^2 + 7^2 + 42^2 = \dots$

Q10. Without actual finding the squares of the numbers, find the value of

(i) $100^2 - 99^2$ (ii) $26^2 - 25^2$

ANSWERS.

Q1 yes of 16	4(iv) 105	(Q6) (i) 1+3+5+7+9+11+13
Q2 $3600 = 60^2$	Q5 (i) 6, 8, 10	(ii) 1+3+5 - - - - - +15
Q3. No, $10\sqrt{21}$	(ii) 3, 4, 5	(Q7) (i) 5^2 (ii) 11^2
Q4. (i) (ii) (iii) Sq. root does not exist	(iii) 8, 15, 17	(Q8) (i) 20 (ii) 40
		(Q9) (ii) 20^2 (iii) 6^2 (iv) 43^2
		(Q10) (i) 199 (ii) 51