

PLAYING WITH NUMBERS**PYTHAGOREAN TRIPLET****EXERCISE**

- Q.1** Write a Pythagorean triplet whose one member is 14:
- (A) 36,64 (B) 48,50
- (C) 5,6 (D) 17,20
- Q.2** Which of the following triplets are Pythagorean?
(3,4,5),(6,7,8),(10,24,26),(2,3,4).
- Q.3** Which of the following is a pythagorean triplet?
- (A) (2,3,5) (B) (5,7,9)
- (C) (6,9,11) (D) (8,15,17)
- Q.4** Write a Pythagorean triplet whose one member is 16 :
- (A) 25,49 (B) 25,61
- (C) 63,65 (D) none of these
- Q.5** Suppose m and n are any two numbers. If $m^2 - n^2$, $2mn$ and $m^2 + n^2$ are the three sides of a triangle, then show that it is a right-angled triangle and hence write any two pairs of Pythagorean triplet
- Q.6** Find a Pythagorean triplet in which one member is 12
- (A) 5,12,13 (B) 7,12,19
- (C) 11,12,15 (D) 11,12,18
- Q.7** Write a Pythagorean triplet whose number is 15

Q.8 Which of the following are Pythagorean triplets?

(i) (9, 8, 10)

(ii) (4, 3, 5)

(iii) (6, 8, 10)

Q.9 Write a Pythagorean triplet whose one number is 8

(A) 8,10,6

(B) 15,10,5

(C) 63,27,3

(D) 80,40,20

Q.10 Pythagorean triplet of given number 6 is

(A) 6,8,10

(B) 6,9,10

(C) 6,8,11

(D) 6,7,10

ANSWER KEY

1. (B) 48,50

2. (3,4,5) is a Pythagorean triplet.

(10,24,26) is not a Pythagorean triplet.

(6,7,8) is not a Pythagorean triplet.

(2,3,4) is not a Pythagorean triplet.

3. (D) (8,15,17)

4. (C) 63,65

5. $1.3^2 + 4^2 = 5^2$

$2.5^2 + 12^2 = 13^2$

6. (A) 5,12,13

7. the triplets are 8,15 and 17.

8. not a Pythagorean triplet

This is a Pythagorean triplet.

This is a Pythagorean triplet.

9. (A) 8,10,6

10. (A) 6,8,10