

## Practice Questions

**Q3.** True/False: Circle on which the coordinates of any point are  $(2 + 4\cos\theta, -1 + 4\sin\theta)$  where  $\theta$  is parameter is given by  $(x-2)^2 + (y+1)^2 = 16$ .

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**S3.** This is a question based on parametric form and center-radius form of circles. Recall parametric form from class notes.

$$x = 2 + 4\cos\theta \implies (x-2) = 4\cos\theta$$

$$y = -1 + 4\sin\theta \implies y + 1 = 4\sin\theta$$

Now square both equations and we get,

$$(x-2)^2 + (y+1)^2 = 16$$

It is a **TRUE** statement.