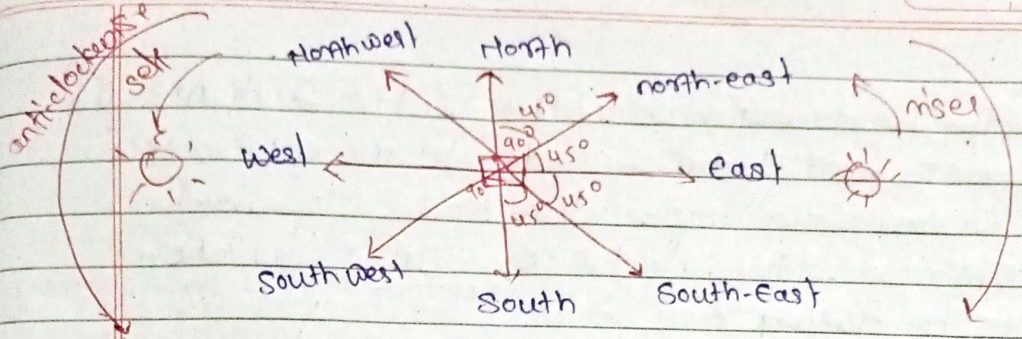
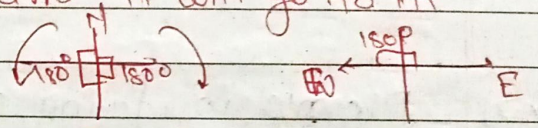
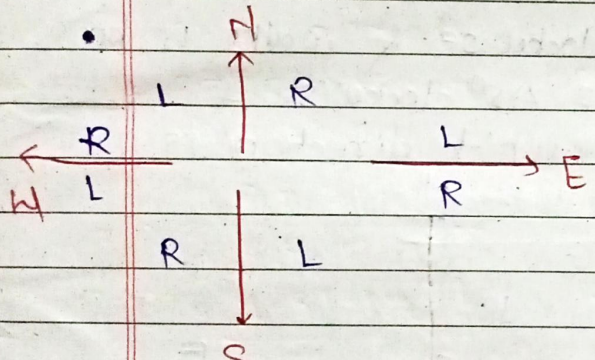
Direction

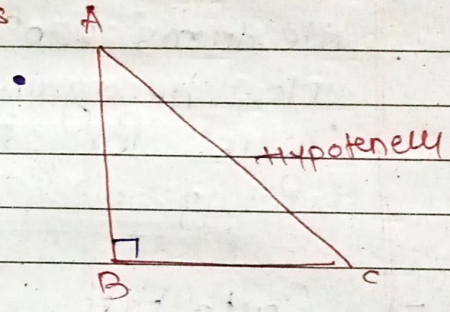


- When the angle is not mentioned while turning it will always be = 90°

- If person takes 180° turns it will go to its opposite direction

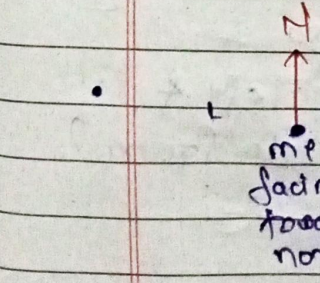




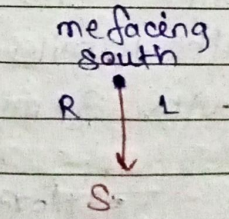


$Ac^2 = AB^2 + Bc^2$

- Morning shadow → West
  Evening shadow → East
  12 Noon No shadow Below feet



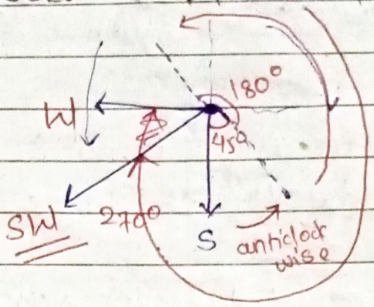
= shadow
sunrise → left
Sunset → right



= shadow
sunrise → Right
Sunset → left

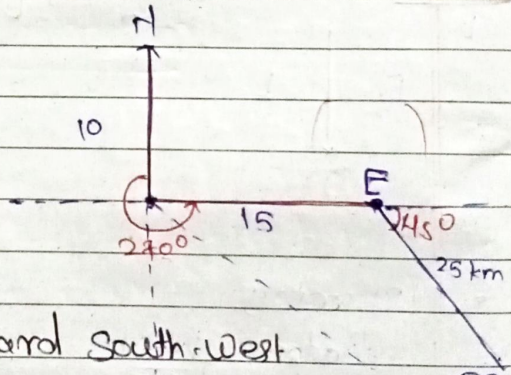
Ex.1] Joe is facing towards South & turns 45° anticlockwise. He turns again 180° in anti-clockwise direction. Now, he turns 270° clockwise. Which direction is he facing?

⇒ South-West



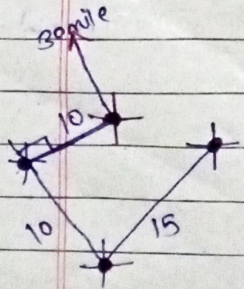
Ex.2] Mom's is facing North & walks 10 kms. He turns 270° anticlockwise & walks 15 kms. Now, he again turns 45° clockwise & walks for 25 kms. Which direction is facing now?

⇒ South-East

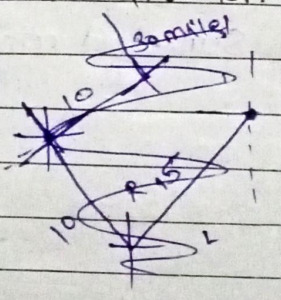


Ex.3) Mary is walking towards South-West for 15 miles, turns right & walks another 10 mile. She then turns 90° clockwise & walks 10 miles. Now she again turns left & walks 30 miles. Which direction is she facing?

270
90
360

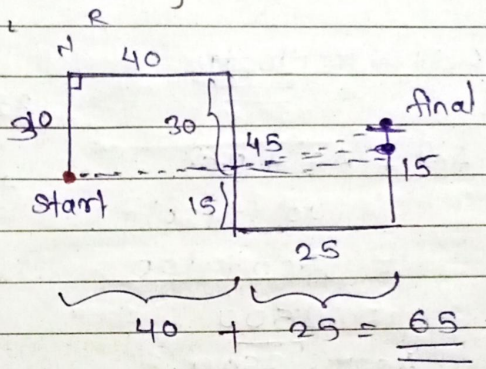


⇒ North-West



Ex.4] Mani walked 30 m towards north. She turned right & walked 40 m. She turned right & walked 45 m. She turned left & walked 25 m. Finally she turned left & walked 15 m. How far is she from starting point.

=> 65



Ex.5] A boy walks 12 kms towards east. He turns 90° clockwise & walks 20 kms then he turned right & walked for 33 kms. How far is he from starting point?

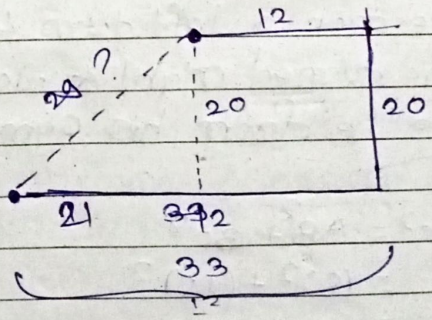
$(x)^2 = (20)^2 + (21)^2$

$= 400 + 441$

$= 841$

$x = \sqrt{841}$

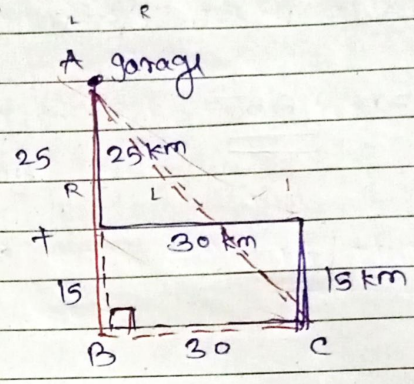
$\boxed{x = 29}$



21
21
420
441

Ex. 6) A car travels 25 kms towards south from garage. It turns left & travels 30 kms, then turns right & travels 15 kms. how far is car from garage & in which direction.

~~25+15 = 40 km~~



$AC^2 = AB^2 + BC^2$

$= (40)^2 + (30)^2$

$= 1600 + 900$

$= 2500$

$AC = \sqrt{2500}$

$AC = 50$

⇒ 50, South-East direction

Ex. 7) Martin walked 13 m towards South from his Gym. He turned left & walked 10 m. He took a left turn & walked 5 m & then he turned right & walked for 5 m. How far is he from his Gym & in which direction?

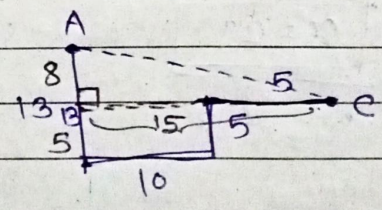
⇒ $AC^2 = AB^2 + BC^2$

$= (8)^2 + (15)^2$

$= 64 + 225$

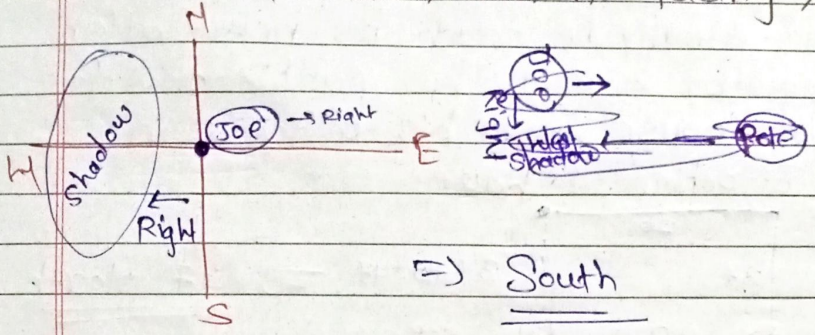
$= \sqrt{289}$

$= 17$



⇒ 17 South-East

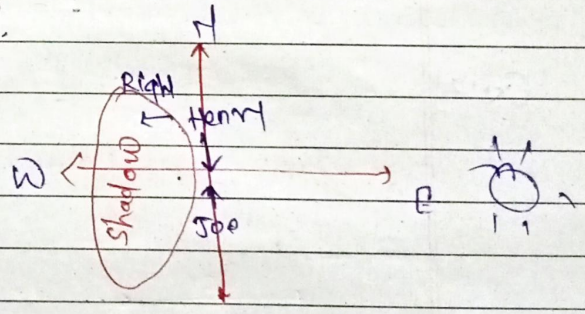
Ex.8) One morning after sunrise, Joe was standing facing a pole. The shadow of pole fell exactly to his right. To which direction was he facing?



⇒ South

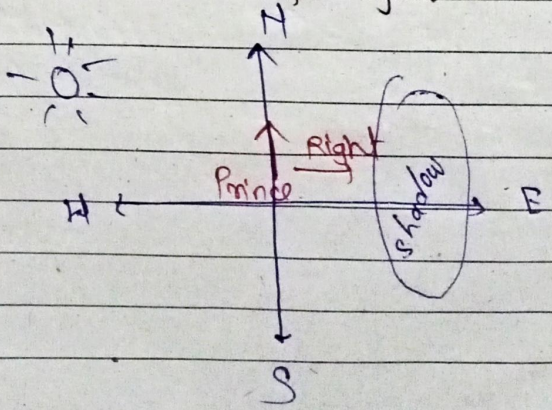
Ex.9) James & Henry are standing facing each other at 8 am. Shadow of Henry fell exactly to his right. To which direction was James facing.

⇒ North

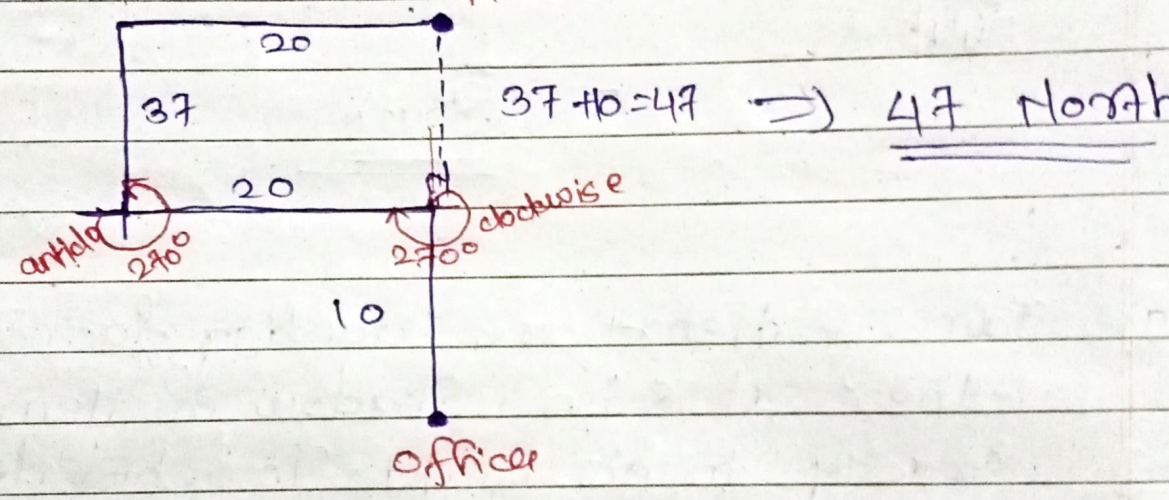


Ex.10) Prince was standing facing to the pole at 1:48 pm Shadow of pole fell towards his right. To which direction was Prince facing.

⇒ North



Ex.11] Ted drives a car 10 m towards North from his office. He turns 270° clockwise & drives for 20 miles. Now, he turns 270° anti-clockwise & drives car for 37 m. finally he reaches his house after driving for 20 m to his right. How far is Ted's house from his office & in which direction?



Ex.12]