Problems on Direction

Direction]

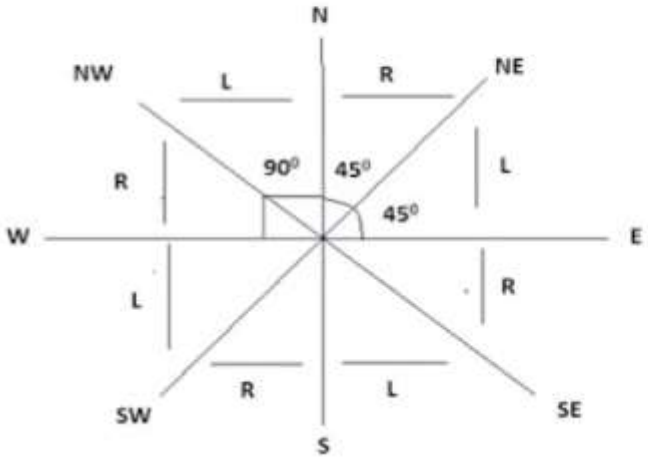
OnlineStudy4u

Placement for All.. All for Placement

This Video Completely covers the problems on"Direction" which is more than sufficient for all kind of placement Exams eg: TCS/WIPRO/AMCAT/ELITMUS/CoCubes and all other placement Exams.

Direction by : Pratik Shrivastava(10 years of industry experience and best Aptitude trainer)

DIRECTIONS: Find the Right Direction



ClockWise = Right
AnticlockWise = Left

Note:
1)There are 8 directions in all i.e. N, S, E, W, NE, SE, SW, NW
2)Angle between 2 crosses i.e. NW & NE or N and E etc is 90*
3)Angle between direction and a cross is 45* i.e. between N & NE or E and SE, etc.

DIRECTIONS: Find the Right Direction

Q1. A Person is walking towards east 5 meters then he turned towards his right and walks 10 meters. Later in the journey he turned towards his right direction and walks for 15 meters finally he turns right and walks 10 meters:]

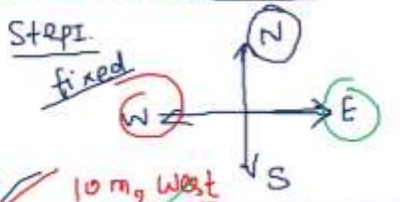
Soln:

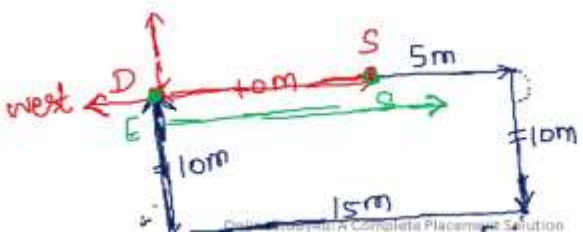
Types of Questions:

Q1. What is his final direction?- North

Q2. How far is he from his starting point and in which direction?

Q3. In which direction is his starting point from ending point?

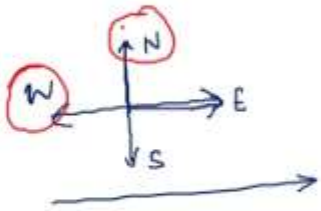


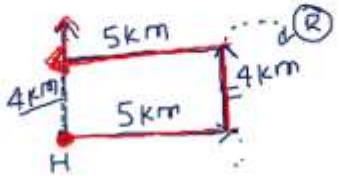


DIRECTIONS: Find the Right Direction

Q2. Siva starting from his house, goes 5 km in the East, then he turns to his left and goes 4 km. Finally he turns to his left and goes 5 km. Now how far is he from his house and in what direction?

Solution: 4 km, North



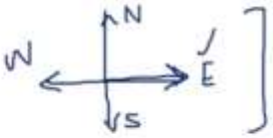


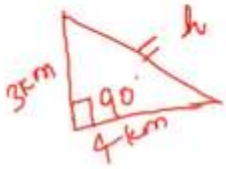
final direction : West

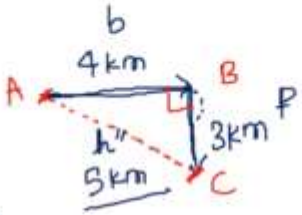
Directions

Q3. Suresh starting from his house, goes 4 km in the East, then he turns to his right and goes 3 km. What minimum distance will be covered by him to come back to his house ?

Solution: 5 km.







Phythagorus Theorem

$h = \sqrt{b^2 + p^2}$

$= \sqrt{4^2 + 3^2}$

$= \sqrt{16 + 9}$

$= \sqrt{25}$

$= 5\text{km}$

Directions

Q4. One morning after sunrise Juhi while going to school met Lalli at Boring road crossing. Lalli's shadow was exactly to the right of Juhi. If they were face to face, which direction was Juhi facing?

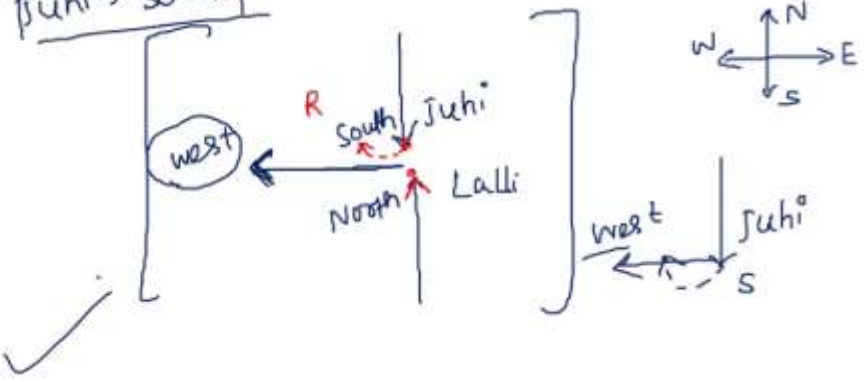
Solution:

Sunrise (East)

⇓

Shadow (West)

Juhi → South



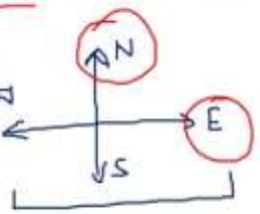
Directions

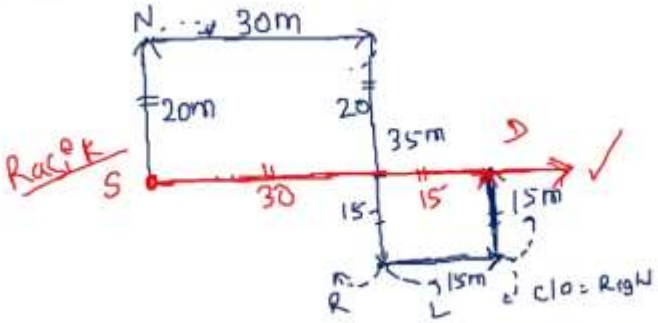
Q5 Rasik walked 20 m towards north. Then he turned right and walks 30 m. Then he turns right and walks 35 m. Then he turns left and walks 15 m. Finally he turns left and walks 15 m. In which direction and how many metres is he from the starting position?

Solution: 45m, East

Total distance: 30+15=45m

Clockwise = Right





final direction: North

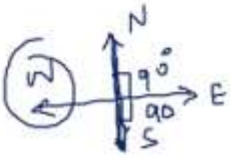
Directions:

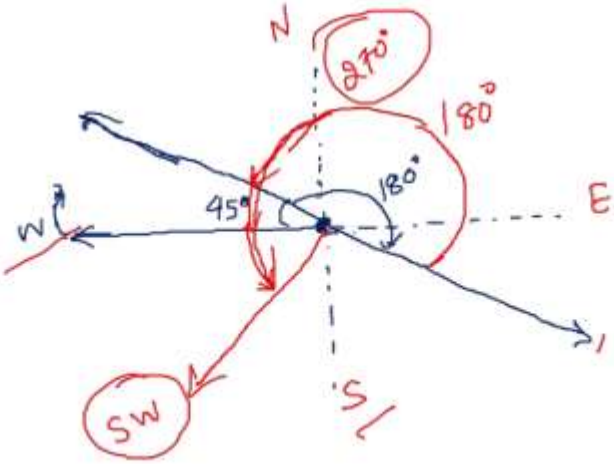
Q6 A man is facing west. He turns 45 degree in the clockwise direction and then another 180 degree in the same direction and then 270 degree in the anticlockwise direction. Find which direction he is facing now ?

angle based

a.South-West b.West c.South d.East-South

Solution:





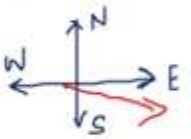
270°-180° = 90°

DIRECTIONS: Find the Right Direction

Q7 A dog runs 20 metre towards East and turns Right, runs 10 metre and turns to right, runs 9 metre and again turns to left, runs 5 metre and then turns to left, runs 12 metre and finally turns to left and runs 6 metre. Now which direction dog is facing ?

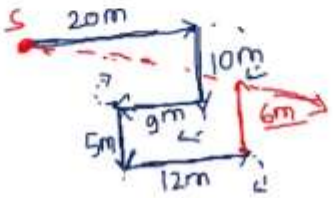
1.East 2.North 3. West 4. South

Solution:



what is dog direction w.r.to starting point

SE



North

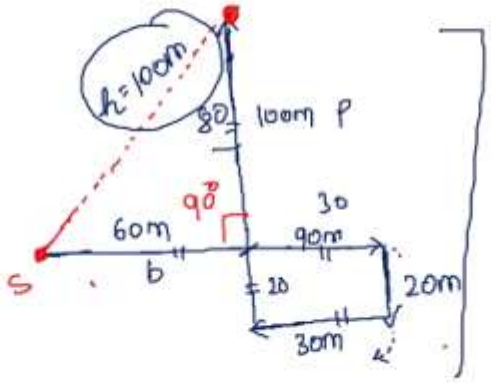
final direction of dog.

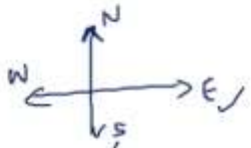
V.V.I ✓

Directions

Q8. A child is looking for his father. He went 90 meters in the east before turning to his right. He went 20 meters before turning to is right again to look for his father at his uncle's place 30 meters from this point. His father was not there. From there, he went 100 meters to his north before meeting his father in a street. How ~~far~~ did the son meet his father from starting point.

Solution:





Pythagoras ✓

$h = \sqrt{p^2+b^2}$

$= \sqrt{80^2+60^2}$

$= \sqrt{6400+3600}$

$\sqrt{10000}$

100×100

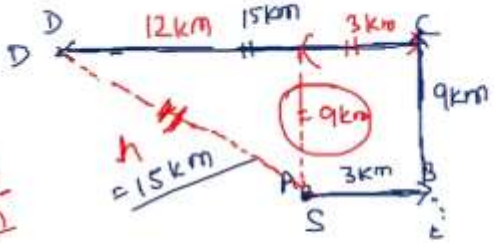
100m

Directions:

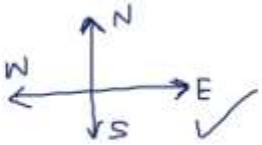
Q9. A person starts from a point A and travels 3 km eastwards to B and then turns left and travels thrice that distance to reach C. He again turns left and travels five times the distance he covered between A and B and reaches his destination D. The shortest distance between the starting point and the destination is

(a)12 km (b) 15km (c) 16 km (d) 18 km (e)None of these

Solution:



Phythagoras theorem



$3 \times 5 = 15$km ✓

$3 \times 3 = 9$ km

$h = \sqrt{p^2+b^2}$

$= \sqrt{9^2+12^2}$ ➤ $\sqrt{81+144}$

$\sqrt{225}$

$= 15$ ✓

good

Directions:

Q10. Two buses start from the opposite points of a main road, 150kms apart. The first bus runs for 25 kms and takes a right turns and then runs for 15 kms. It then turns left and runs for another 25 kms and takes the direction back to reach the main road. In the meantime, due to a minor breakdown, the other bus has run only 35 kms along the main road. What would be the distance between the two buses at this point ?

(a)65 kms (b)75 kms

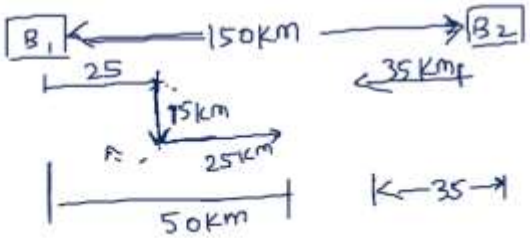
(c)80 kms (d)85 kms

Solution:

$= 150 - (50+35)$

$= 150 - 85$

$= 65$ kms ✓



Directions:

Q11.

[very good]

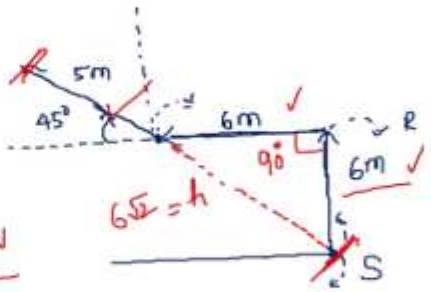
While facing East, Williams turns to his left and walks 6 metres, then he again turns to his left and walks 6 metres, then turns 45° towards his right and walks a distance of 5 metres. Then what are the direction he is facing and the distance from his starting point ?

(1) North-east, $5 + 6\sqrt{2}$ m

(2) North-west, $5 + 6\sqrt{2}$ m

(3) South-west, 17 m

(4) North-west, 17 m



$6\sqrt{2} = h$

$(5+6\sqrt{2}$ m), NW

Pythagoras

$= \sqrt{72}$

$= \sqrt{2\times6\times6}$

$6\sqrt{2}$

$h = \sqrt{p^2+b^2}$

$= \sqrt{6^2+6^2}$

$= \sqrt{36+36}$

---

very good

Directions:

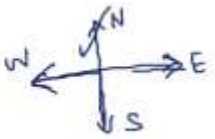
Q12. A tourist has strayed from his path while on his way to his hotel. He moves 28 km towards south, then moves 20 km towards West, then 4 km towards North and then 2 km towards East to reach his hotel. What is the distance of the shortest possible route?

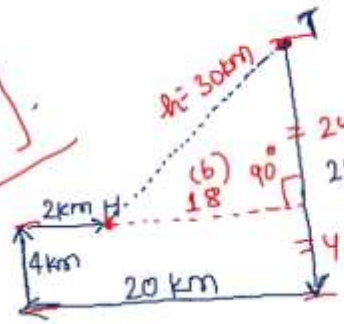
a) 30 km b) 27 km c) 25 km d) 32 km

[Wipro] ✓

Solution:

Simple
1-20
1-35
1-15





Pythagoras ✓

$h = \sqrt{p^2+b^2}$

$= \sqrt{24^2+18^2}$

$= \sqrt{576+324}$

$= \sqrt{900} = 30$km

Directions(13-15):] ✓ [This problem] ✓

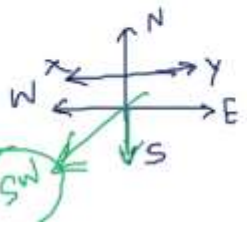
There are AB axis in such a way that A is in north and B is in south direction. There is XY axis in such a way that X is in west direction and Y is in east direction. AB axis and XY axis intersect at a point Q in such a way that AQ is 13m, QB is 15m, QX is 10m, QY is 22 m.

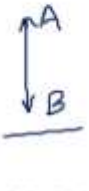
Sharvan starts walking from point X and walks 18m in south direction and then he takes a turn to his left and walks 30m. Siddharth starts walking from point A and walks 20m in east direction. Dipendra starts walking from point Y and walks 3m in north direction and then he takes a turn to his left and walks 2m and again he takes a turn to his left and walks 18m.

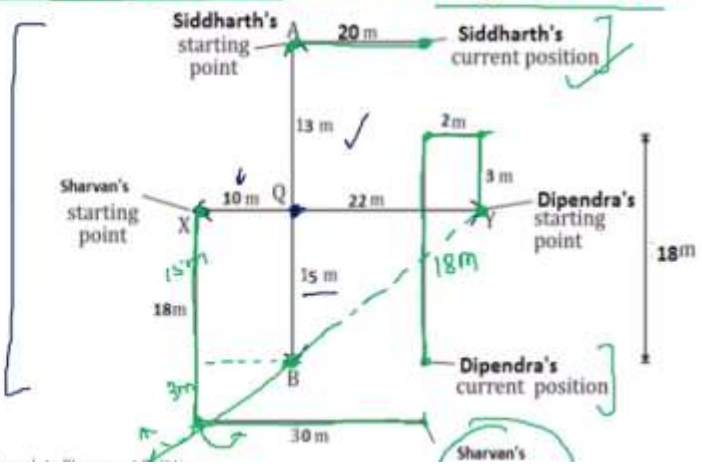
Q13. Point B is in which direction with respect to Dipendra's current position?

(a) South (b) south-east

(b) (c) south-west (d) west (e) north-west







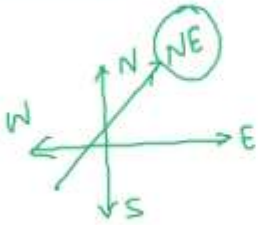
Directions(13-15):

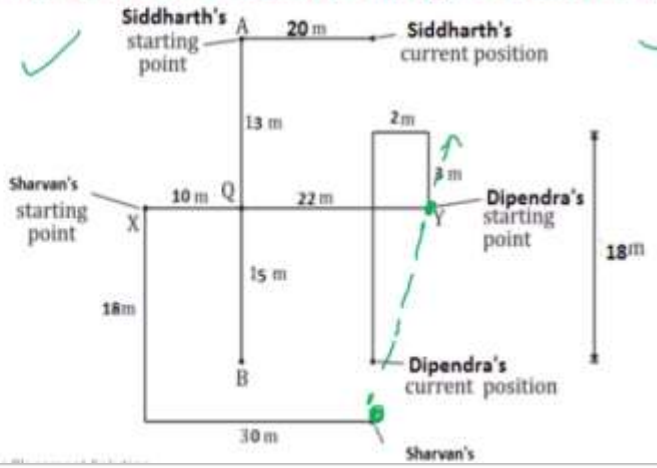
There are AB axis in such a way that A is in north and B is in south direction. There is XY axis in such a way that X is in west direction and Y is in east direction. AB axis and XY axis intersect at a point Q in such a way that AQ is 13m, QB is 15m, QX is 10m, QY is 22 m.

Sharvan starts walking from point X and walks 18m in south direction and then he takes a turn to his left and walks 30m. Siddharth starts walking from point A and walks 20m in east direction. Dipendra starts walking from point Y and walks 3m in north direction and then he takes a turn to his left and walks 2m and again he takes a turn to his left and walks 18m.

Q14. Point Y is in which direction with respect to Sharvan's current position?

(a) north
(b) east
(c) north-east
(d) north-west
(e) south





Directions(13-15):

There are AB axis in such a way that A is in north and B is in south direction. There is XY axis in such a way that X is in west direction and Y is in east direction. AB axis and XY axis intersect at a point Q in such a way that AQ is 13m, QB is 15m, QX is 10m, QY is 22 m.

Sharvan starts walking from point X and walks 18m in south direction and then he takes a turn to his left and walks 30m. Siddharth starts walking from point A and walks 20m in east direction. Dipendra starts walking from point Y and walks 3m in north direction and then he takes a turn to his left and walks 2m and again he takes a turn to his left and walks 18m.

Q15. What is distance between Siddharth's current position and Sharvan's current position?

(a) 31m
(b) 33m
(c) 11m
(d) 20m
(e) 25m

18 + 13 = 31m