

Mathematics

0580

Paper - 2.

Trigonometry

Exercise - (M-19; M-18, S-18; S-19, W-18)

(with answers)

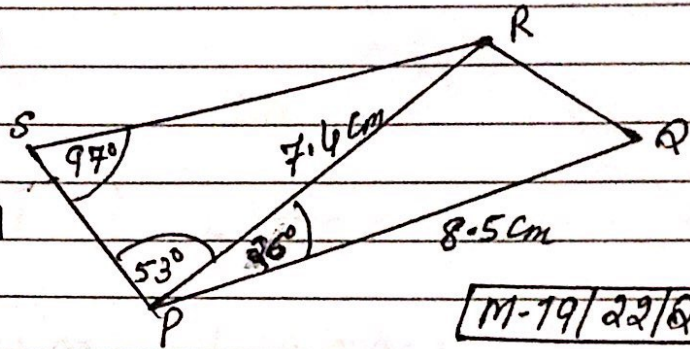
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1. The bearing of Alexandria from Paris is 128° .
Calculate the bearing of Paris from Alexandria. --- [2]
[M-19/22/Q7]

2. Calculate

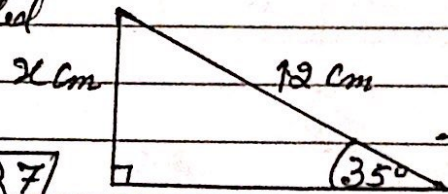
- (a) SR --- [3]

- (b) RQ --- [4]



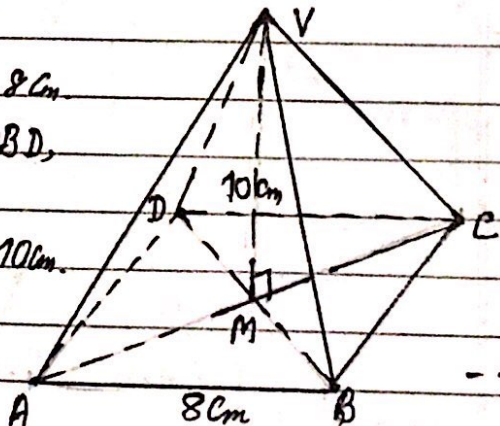
[M-19/22/Q24]

3. The diagram shows a right-angled triangle.
Calculate the value of x .



[S-19/21/Q7]

4. The diagram shows a pyramid with a square base ABCD of side length 8 cm. The diagonals of the square, AC and BD, intersect at M. V is vertically above M and $VM = 10$ cm. Calculate the angle between VA and the base.

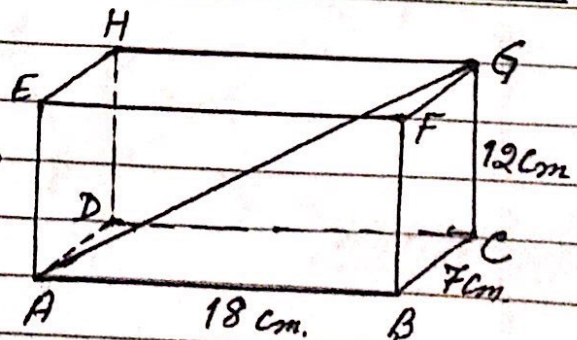


[S-19/21/Q21]

5. Use your calculator to work out $\sqrt{1 - (\sin 33^\circ)^2}$ --- [1]

[S-19/22/Q2]

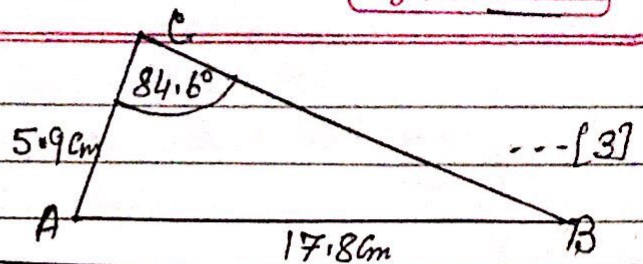
6. ABCDEFGH is a cuboid. $AB = 18$ cm, $BC = 7$ cm and $CG = 12$ cm. Calculate the angle that the diagonal AG makes with the base ABCD.



[S-19/22/Q24] --- [4]

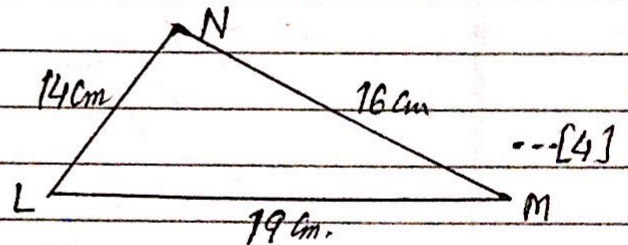
7. Using the sine rule find the angle ABC.

[S-18/21/Q14]



8. Calculate angle LMN.

[S-18/21/Q19]

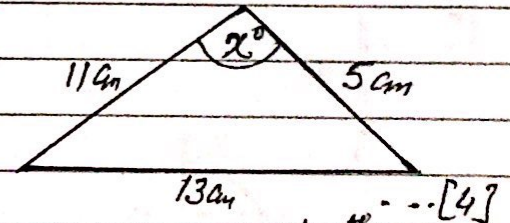


9. A and B are two towns on a map. The bearing of A from B is 140° . Work out the bearing of B from A.

[S-18/22/Q7] --- [2]

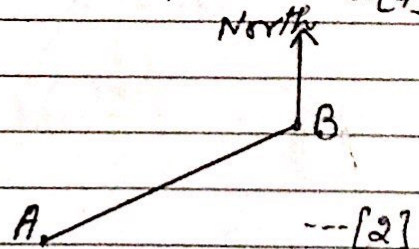
10. Calculate the value of x .

[S-18/23/Q23]



11. The bearing of A from B is 227° . Find the bearing of B from A.

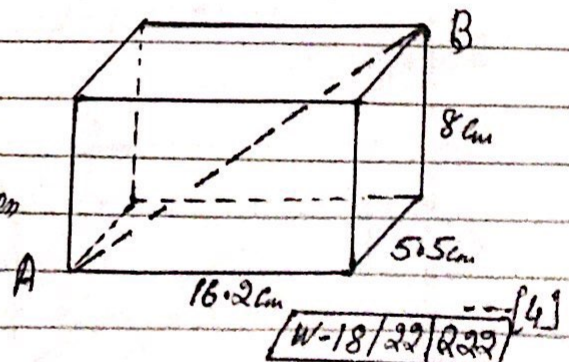
[W-18/21/Q6]



12. x° is an obtuse angle and $\sin x^\circ = 0.43$. Find the value of x .

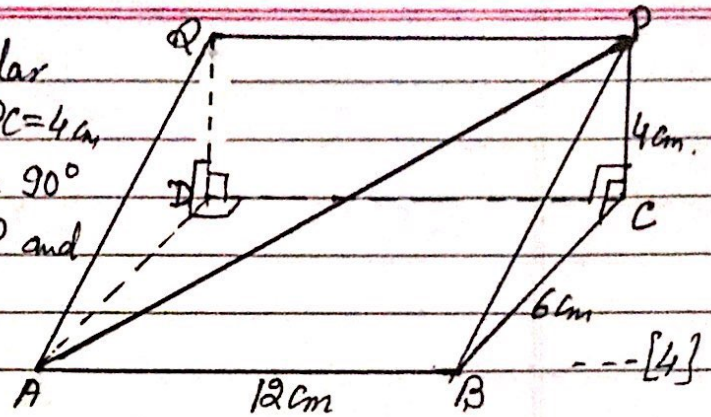
[W-18/22/Q12] --- [2]

13. The diagram shows a cuboid with dimensions 5.5 cm, 8 cm and 16.2 cm. Calculate the angle between the line AB and the horizontal base of the cuboid.



14. The diagram shows a triangular prism, $AB = 12\text{cm}$, $BC = 6\text{cm}$, $PC = 4\text{cm}$, angle $BCP = 90^\circ$ and angle $ADC = 90^\circ$. Calculate the angle between AP and the rectangular base $ABCD$.

W-18/23/Q23



Answers

1. 308° ✓
2. (a) 5.95 ✓ (b) 3.73 ✓
3. 6.88 ✓
4. 60.5 ✓
5. 0.839 ✓
6. 31.9 ✓
7. 19.3 ✓
8. 46.2 ✓
9. 320
10. 102.1 ✓
11. 47 ✓
12. 154.5 ✓
13. 25.1 ✓
14. 16.6 ✓

← X — X —→