

3D Trigonometry and Pythagoras (A)



Calculate the following using trigonometry and Pythagoras.
Give answers to 2 decimal places.

NOT TO SCALE

<p>T is vertically above A ABCD is a rectangular car park M is the midpoint of CD</p>	Calculate:
	The length of the line AD _____
	The size of angle ADT _____
	The angle between AM and AC _____
	The length of the line AM _____
The length of the line TM _____	

<p>PQRSTUWV is a cube PQ = 5 cm</p>	Calculate:
	The size of angle RQS _____
	The length of the line PR _____
	The size of angle PRU _____
	The length of the line US _____
The angle between PS and the base UWST _____	

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LMNOPQ is a wedge

The base PQNO and the face LMPQ are rectangles

X is the midpoint of LO

Calculate:	
The size of angle LNM	_____
The length of the line LN	_____
The length of the line PO	_____
The angle between LN and the base PQNO	_____
The angle between XN and the base PQNO	_____

ABCDE is a square-based pyramid

E is directly above the centre of the base

EQ is the perpendicular height, 12 cm

P is the midpoint of DC

Calculate:	
The size of angle DQP	_____
The length of EP	_____
The size of angle EPQ	_____
The angle between EB and the base ABCD	_____
The surface area of the pyramid	_____