



3D Trigonometry and Pythagoras (A)



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

NOT TO SCALE

T is vertically above A
ABCD is a rectangular car park
M is the midpoint of CD

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	_____

PQRSTUWV is a cube
PQ = 5 cm

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	_____

LMNOPQ is a wedge
The base PQNO and the face LMPQ are rectangles

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	_____