



# SPTA

## N5 Homework

### Mixed 6

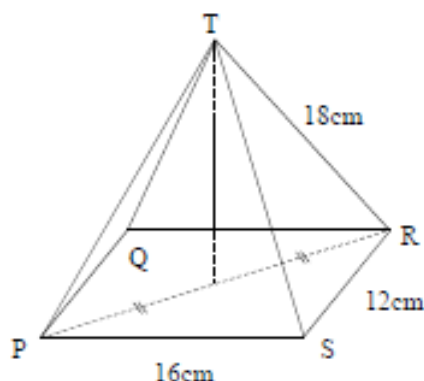


Show all working – **NO** Calculator required for Qu 2 & 5.

Marks

1. The pyramid opposite has a rectangular base.

- a) Calculate the length of the base diagonal PR.
- b) Given that edge TR = 18cm, calculate the vertical height of the pyramid.



(5)

2. Evaluate:  $2\frac{5}{6} \div 1\frac{3}{4}$

(3)

3. The heights, in centimetres, of a sample of eight shrubs were recorded in centimetres:

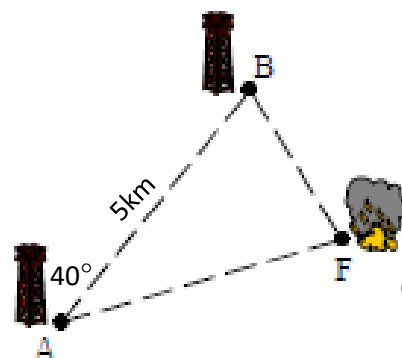
345      350      370      320      280      325      275      295

- a) Calculate the mean and standard deviation.
- b) Another sample of shrubs has a mean height of 280cm and a standard deviation of 6.3.  
How does this second sample compare with the first? Write 2 statements.

(4)

(2)

4. A and B represent two forest look-out towers.  
B is 5km from A and is on a bearing of  $040^\circ$  from A.  
A forest fire is sighted at F, which is on a bearing of  $070^\circ$  from A  
and on a bearing of  $150^\circ$  from B.  
A fire-fighting helicopter leaves A for F.  
What distance does this helicopter have to travel to reach the fire?



(5)

5. a) State the gradient and y-intercept of the straight line with equation:  $2y + 5x = 3$
- b) Find the equation of the straight line joining the points A(3, -2) & B(5, 4).

(3)

(3)

**Total Marks: 25**