



SPTA

N5 Homework

Mixed 4



Show all working – Calculator required for Qu 4 & 5 only.

Marks

1. If the gradient of the line joining the points $(-2, -4)$ & $(1, p)$ is $\frac{2}{3}$ find p (3)

2. Fully factorise the following: (a) $6x^2 - 54$ (b) $2x^2 - 9x + 4$ (4)

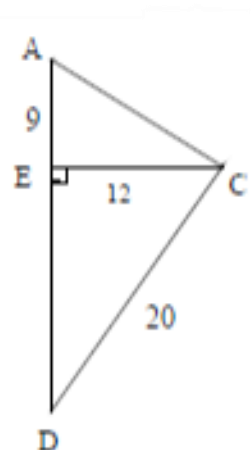
3. Express $x^2 - 8x + 17$ in the form $(x + a)^2 + b$ and state the values of a & b (3)

4. Consider the diagram opposite. All lengths are centimetres.

a) Calculate the length of AC. (2)

b) Calculate the length of ED. (2)

c) Prove that triangle ACD is right-angled at C. (3)



5. Siobhan buys a house for £345000 in 2020.

If it appreciates in value by 2.5% each year, how much will it be worth in 2023? (3)

Total Marks: 20