Questions

1. Prove if n^2 is even then n is even. [Hint: Use proof by contradiction]
2. Split into partial fractions
$$\frac{3x}{(x-2)(x+1)}$$
3. Use factor theorem to factorise $x^3 - 4x^2 + x + 6$.
4. If $f(x) = x^2$. What is $f(x+1)$? What about $f(-x)$?
5. Here are the first 4 terms of a sequence: 2, 5, 8, 11. Can you find the 20th term? Work out
$$\sum_{n=1}^{20}(2 + 4(n-1))$$
6. Work out the terms up to x^3 in the binomial expansion of $\sqrt{(4-9x)}$.
7. Find arc length of a sector with radius 4cm and angle $\theta = 1.2$ radians.
8. What is the range and domain of $\sin^{-1}(2x)$?
9. Use the sin addition formula on $\sin(x + \pi/4)$.
10. Sketch $y = 2t, x = t^2$.
11. Find the second derivative of x^2e^x
12. Compute
$$\int_2^3 x^2 + 3x + 1$$

How to contact me

1. You should be members of Teams group
2. Email: MKusumgar@whtc.co.uk
3. Maths Office: Maths Office: Free after school on Mon, Tue, Wed from 3pm to whenever. Free P5 on Tue and Wed. Free P3 on Wed.