Mathematics A Level ʹ Preparatory Work 2023
This piece of work should be completed before your first lesson; it will help prepare you for the first week of the
Mathematics course. It is a worksheet that covers basic manipulation of algebra and comes from a GCSE to A Level
transitional set of work, which is a resource we use to support students struggling with the essential algebraic basis
of the course.
Please bring your completed work to the first lesson, some of which will be marked by your teacher.
1. Rearrange 𝑎(𝑞−𝑐)=𝑑 to make 𝑞 the subject

2. Make 𝑛 the subject of the formula 𝑚=5𝑛−21

3. Make 𝑝 the subject of the formula 𝑘(𝑝−2𝑞)=3𝑝+2

4. Make 𝑟 the subject of the formula 𝑝=𝜋𝑟+2𝑟+2𝑎

5. Make 𝑎 the subject of the formula 2(3𝑎−𝑐)=5𝑐+1

6. Make 𝑚 the subject of the formula 2(2𝑝+𝑚)=3−5𝑚

7. Make 𝑥 the subject of 5(𝑥−3)=𝑦(4−3𝑥)

8. When you are ℎ feet above sea level, you can see 𝑑 miles to the horizon, where 𝑑=√
3ℎ
2
. Make ℎ the
subject of the formula.

9. Rearrange the formula 𝑦=
2𝑝𝑡
𝑝−𝑡
 , to make 𝑡 the subject.

10. Make 𝑏 the subject of the formula 𝑎=
2−7𝑏
𝑏−5

11. Rearrange the formula to make 𝑎 the subject 𝑃=
𝑛
2+𝑎
𝑛+𝑎

12. Make 𝑥 the subject of the formula
𝑥
𝑥+𝑐
=
𝑝
𝑞

13. Rearrange to make 𝑢 the subject of the formula,
1
𝑢
+
1
𝑣
=
1
𝑓
 , simplify your answer