

## Layout of Mock Papers

Sec A - 6 x 25 marks (150 marks)

Sec B - 3 x ? marks (150 marks)

## Paper 1

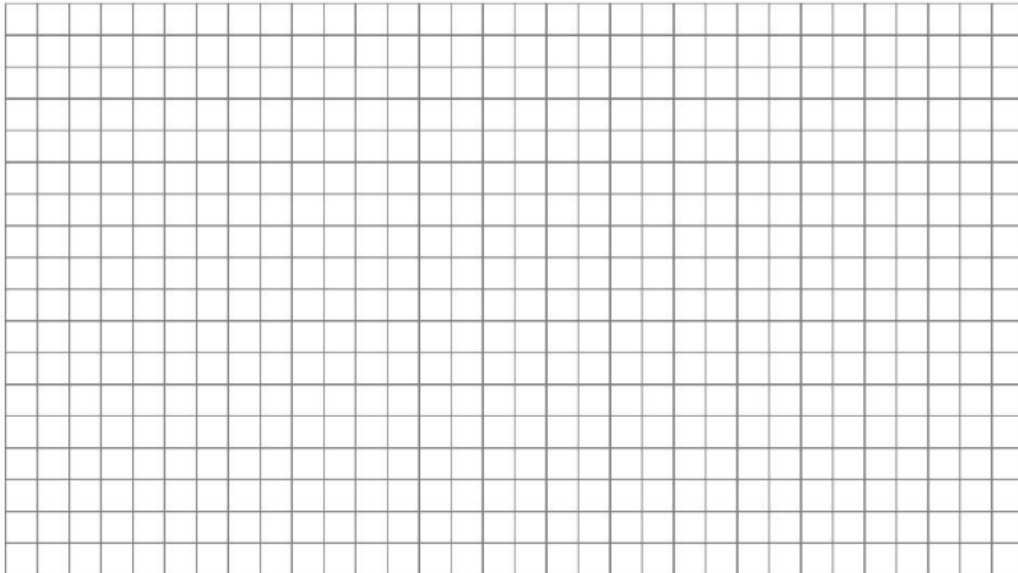
Q1 Algebra 2 - Cubic  $a^{\overset{10}{\checkmark}}$   $b^{\overset{10}{\checkmark}}$   $c x$ 

p. 181 Q2 (b)

Q2 Complex Nos - Argand Diagram / Polar / de Moivre  
Geometric Sequence

Q1 Algebra 2 - Cubic  $a \checkmark$   $b \checkmark$   $c \checkmark$   
 p. 181 Q2 (b)

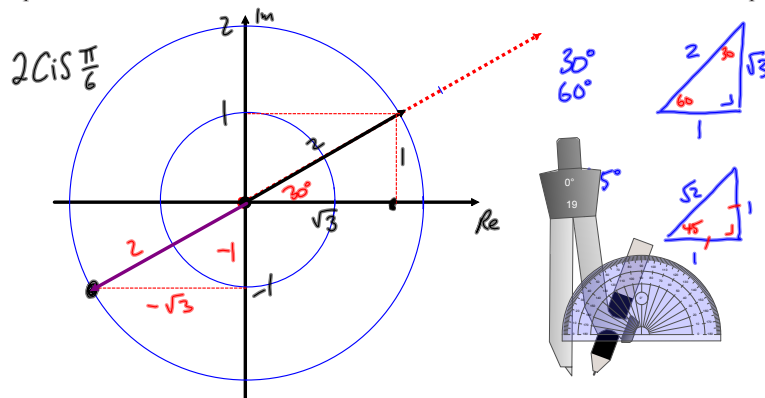
(b)  $(x + 4)$  is a factor of  $P(x) = x^3 - kx^2 - 22x + 56$ . Find  $k$ . Find all the roots of  $P(x) = 0$ .



Q2 Complex Nos - Argand Diagram / Polar / de Moivre  
 Geometric Sequence

Geometric Sequence TRTB : Q7 p.155

The three numbers  $n - 2, n$  and  $n + 3$  are three consecutive terms of a geometric sequence. Find the value of  $n$  and hence write down the first four terms of the sequence.

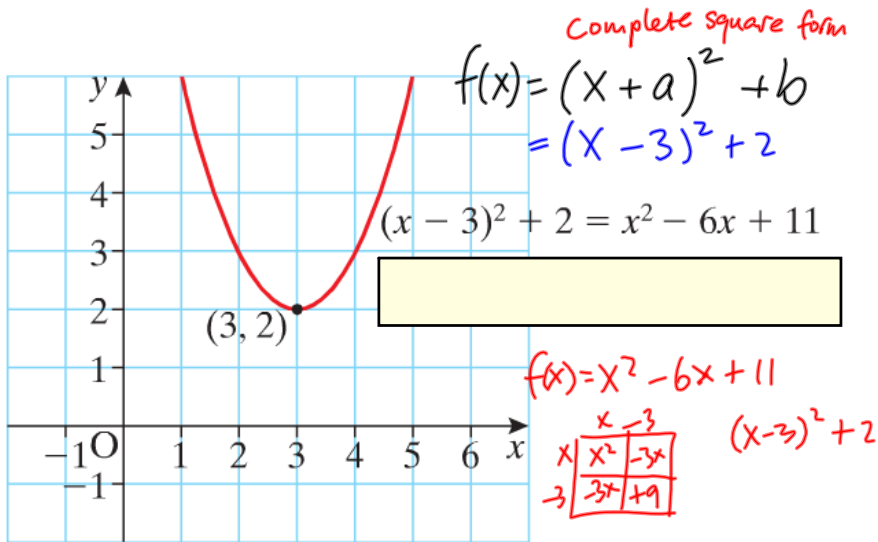


Consider  $x^4 = ?$  roots?  $x = ?$   
 $x_1 = 2$   $x_2 = -2$   $x_3 = 2i$   $x_4 = -2i$   
 $x^4 = (2)^4 = 16$

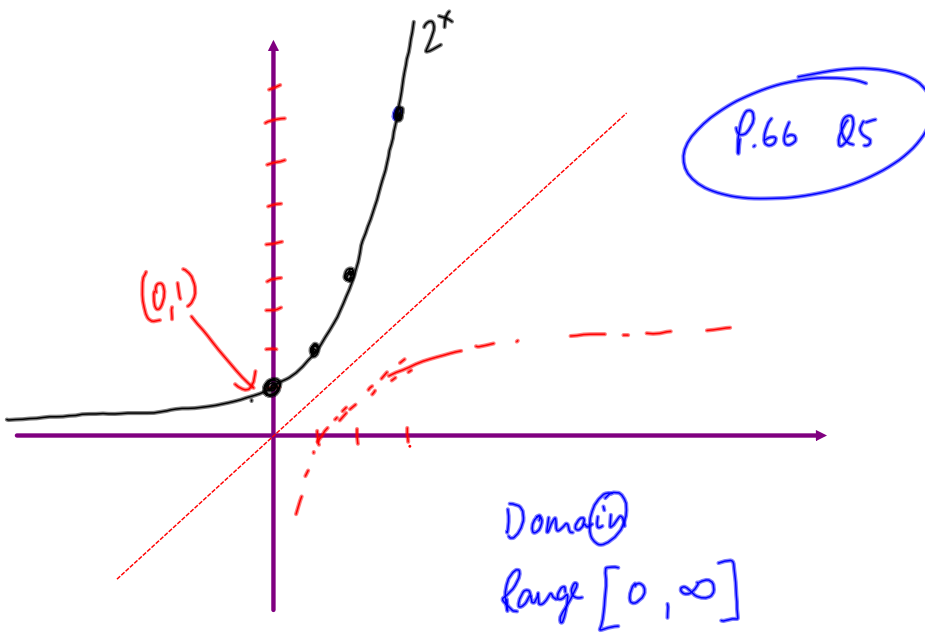
Q3 Algebra - Inequality - Quadratic Graphs

SIP1 Q4 (b)

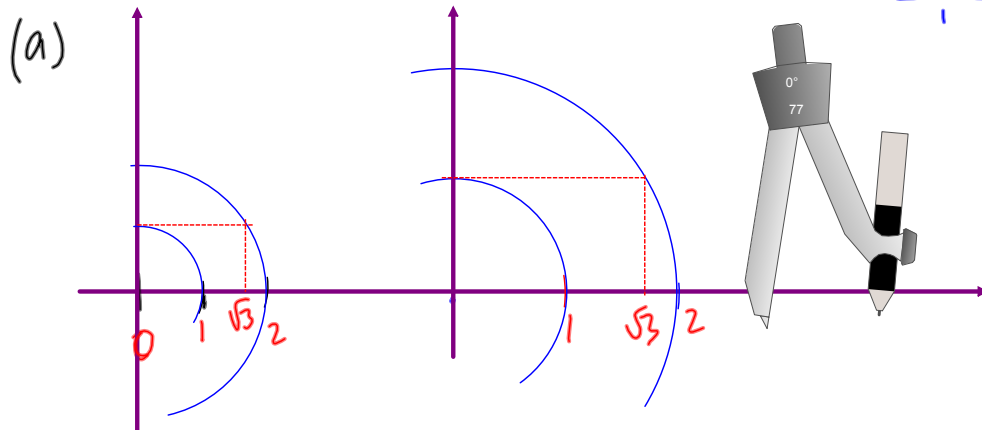
(b) Solve  $\frac{x}{x+1} > 2, x \neq -1, x \in \mathbb{R}$ .



.4Q (a) ✓ b X c X



Q5. Construction



(b) Sequences / Series

Composite no.

~~Q6 ignore~~

Q7 a (i) functions

a(ii) (iii) (iv) X

(b) Financial Maths (p. 109-110)

$$S_n = \frac{a(1-r^n)}{1-r}$$

$$F = P(1+i)^n$$

$$\text{MER} = \sqrt[12]{1+i} - 1$$

Q8 Sequences & Series

Exponential functions ✓

eg. Q.9 p.338

~~Q9 ignore~~