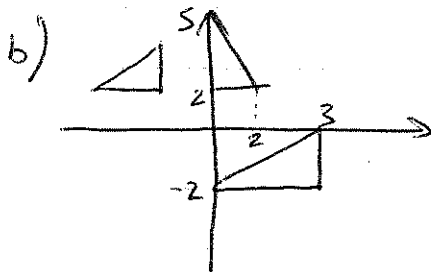
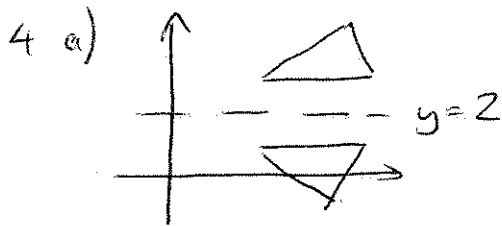


# 3rd Form June 2008 Paper 1

- 1/ T T T T F T  
 2/ a) 1.8 number line  
 b) 20  
 c) 4

- 3/ a)  $k=3, m=6$   
 b) 16384



- 5/  $x=-1, y=3$   
 6/ a)  $a=1500, b=20$   
 b)  $\frac{3d}{5}$   
 c)  $9x-14$   
 d)  $x^2-4x+4$

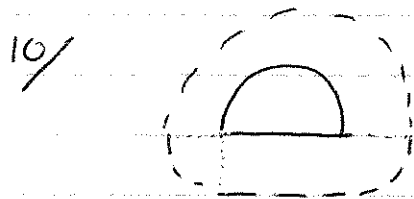
- 7/ a) E A C D B  
 b) if  $x=10, y=15 \therefore$  no  
 c)  $\frac{1}{10}$

- 8/ a)  $\frac{n}{2n+1}$   
 b)  $\frac{2}{5}, \frac{3}{10}, \frac{4}{17}$

- 9/ a)  $50^\circ$ , show angles on diagram for working.

18/  $\frac{9c}{5} + 32 = 2c + 30$   
 $c = 10$

- b) show that  $\widehat{DBE} = \widehat{BDE} = 30^\circ$



- 11/ a)  $4 \times 10^{-4}$   
 b)  $4 \times 10^{-5}$   
 c)  $4.4 \times 10^{-4}$

- 12/ a)  $8.7 \times 10^4$   
 b)  $1 \times 10^{-3}$

13/ a)  $\frac{p}{12} = \frac{10}{8} \therefore p = 15$

- b)  $CD = 12\text{cm}$   
 c) Yes, all angles equal

- 14/ a) A (0, -8) B (2, 0)  
 b)  $y = 2x$

15/  $(y+1)(y+5) = (y+10)(y-3)$   
 $y^2 + 6y + 5 = y^2 + 7y - 30$   
 $6y + 5 = 7y - 30$   
 $y = 35$

- 16/ D C B A E  
 17/ ①  $\frac{\pi(3a)^2}{2} = \frac{9\pi a^2}{2}$

②  $\frac{\pi(2a)^2}{2} = \frac{2\pi a^2}{1}$

③  $\frac{\pi a^2}{2}$   $A = \frac{9}{2}\pi a^2 + 2\pi a^2 - \frac{1}{2}\pi a^2 = 6\pi a^2$

b)  $6\pi a^2 = 12 \Rightarrow a = \sqrt{\frac{2}{\pi}}$