Exo Maths TD 2

Exo 1

1) (AB) = -2x - 11
   (BC) = 2/3x + 7/3
   (CD) = -x - 1
   (DE) = 2x - 4
   (EF) = -4x + 20

2) ARI = (RI*AR)/2 = ((1/2)*1)/2 = ¼
   IBJ = ¼ +3/4 = 1
   JKC = ¾ + ½ = 5/4
   KDL = 2 + 1 = 3
   LME = 4 + 2 = 6
   MTF = 2

3) f'(-11/2) = -2
   f'(-3) = 2/3
   f'(0) = -1
   f'(3/2) = 2
   f'(1/2) = -1
   f'(3) = 2
   f'(5) = -4
   f'(4) = 0

   $\int_{-6}^{-5} f(x)dx = 0$
   $\int_{-5}^{2} f(x)dx =$ − ¾ + 5/4 - 3 = -5/2
   $\int_{1}^{4} f(x)dx = 4 - 1 = 3$
   $\int_{0}^{6} f(x)dx = 4 - 5/2 = 3/2$
   $\int_{-6}^{2} f(x)dx =$ -5/2
   $\int_{-3}^{4} f(x)dx =$ JCK – 1/12 – KLD + 4 = 5/4 – 1/12 – 3 + 4 = 13/6
   $\int_{1}^{3} f(x)dx = 0$
   $\int_{-6}^{6} f(x)dx = 3/2$

Exo 2

1) (AB) = -4x - 20
   (BC) = 2x + 4
   (CD) = -x + 1
   (DE) = 2/3x – 7/3
   (EF) = -2x + 11

2) ARI = 2
   IBJ = 6
   JKC = 3
   KDL = 5/4
   LME = 1
   MTF = ¼

3) f'(-11/2) = -4
   f'(-3) = 2
   f'(0) = -1
   f'(3/2) = -1
   f'(1/2) = -1
   f'(3) = 2/3
   f'(5) = 0
   f'(4) = 2/3

   $\int_{-6}^{-5} f(x)dx = 2$
   $\int_{-5}^{2} f(x)dx = -7/2$
   $\int_{1}^{4} f(x)dx =$ -7/6
   $\int_{0}^{6} f(x)dx = 0$
   $\int_{-6}^{2} f(x)dx =$ 2 - 6 + 3 - ½ = -3/2
   $\int_{-3}^{4} f(x)dx =$ 5/6
   $\int_{1}^{3} f(x)dx =$ -7/6
   $\int_{-6}^{6} f(x)dx =$ -3/2