**Fundamental Applied Maths :**

**1.)**

**Ex 5d Q3 : page 148**

**a**

**S**

**S**

**mg**

**C**

**T**

**A**

**T**

**2mg**

**D**

**S**

**mg**

**S**

**2mg**

**E**

**a**

**b**

**b**

**a**

**4.)**

**2.)**

**3.)**

**Equations:**

**1.) T - 2mg = 2ma 2.) 2S + mg - T = ma 3.) mg - S = m(a – b)**

**4.) 2mg - S = 2m(a + b)**

**Get an expression for T from 1.) ... ( T = 2ma + 2mg) and sub into 2.) ...**

**giving : 2S = mg + 3ma or S =  mg + mg**

**Then sub this into 4.) and 5.) to get :**

**5a - 2b = g**

**7a + 4b = 3g**

**solve to get :**

**a = 5g**

**17**

**then work out b, S, T by subbing in 5g for a ........**

**17**