**Assignment**

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| **Q.No.1** |  ***(20)*** |

1. **A yarn merchant sells brands A, B, C of yarn each of which is a blend of Pakistani, Egyptian and American cotton in the ratio 1:2:1, 2:0:2 respectively. If one kilogram of A, B, C costs 40, 50 and 60 rupees respectively, fin the cost of a kilogram of cotton of each country.**

**Hint:**

**x+2y+z = 160**

**2x+y+z= 200**

**2x+2z = 240**

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| **Q.No.2** |  ***(10)***  |

Solve

1. $ \frac{dy}{dx}=\frac{x^{3}+y^{3}}{x^{2}y+ xy^{2}} $
2. $\left(y-x+5\right)dy=(y-x+1)dx$