Equations – Problem Solving 1

1. Jack and Harry each decide to spend their pocket money on lollies. Jack receives $7 less than twice the pocket money Harry receives.

    a. Write an equation showing this information. Let Jack's pocket money be j and Harry's pocket money be h.

    b. Jack managed to buy 22 lollies, which cost 50c each.

        i. How much pocket money did each boy receive?

        ii. How many lollies did Harry buy?

2. Mary and Jane both go running every morning. Mary usually runs 2km, while Jane runs 300m more than half of Mary's distance.

    a. Write an equation showing this information, where m is Mary's distance and j is Jane's distance.

    b. How far does Jane run?

    c. They each take 30 minutes to run their distance. For each of them, find the average speed at which they run in:

        i. m/s

        ii. km/h

    d. If they both ran for an hour at the same speeds, who would run further and by how much?

3. Liam just got a new job, where he earns one third more than what he earned before. If he previously earned $18 per hour and worked for 35 hours each week, how much does he earn now in one week?