NAME: _____

YEAR: _____

LABASA SANGAM (SKM) COLLEGE

HOME STUDY PACKAGE

YEAR 11 APPLIED MATHEMATICS

WORKSHEET 7

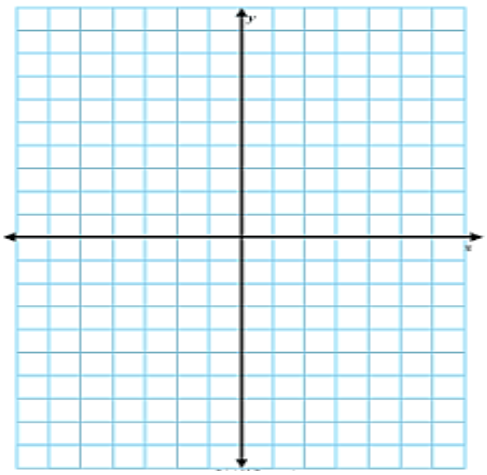
Week 7 Activity

STRAND 4: GRAPHS

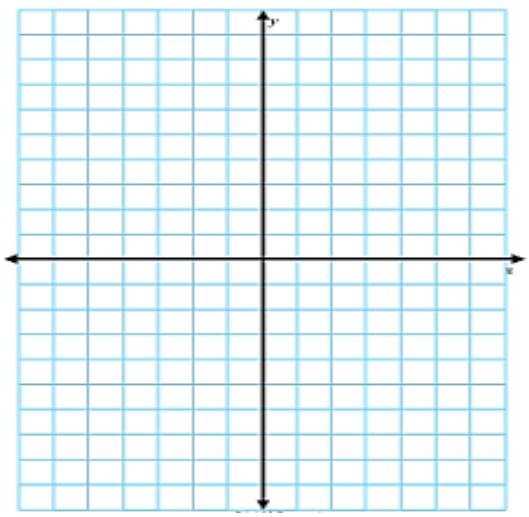
SUB STRAND: EXPONENTIAL FUNCTION

1. Sketch the graph of the following:

   a. $y = 3^X$



   b. $y = (\frac{1}{4})^X$



NAME:

YEAR 11:

YEAR 11 MATHEMATICS LIFE SKILLS

WORKSHEET (WEEK 7 – 9)

STRAND 3: Linear Functions in Everyday Context

Sub-strand 3.2: Simultaneous Equations

1. Determine whether $x = 1$ and $y = 10$ is a solution to the equations:

$$x+3y=30$$

$$2x-y=-9$$

2. Determine whether $x = 1$ and $y = 10$ is a solution to the equations:

$$x+3y=30$$

$$2x-y=-9$$

3. An ATM machine issues \$10 and \$20 notes only. On a particular day 66 notes had been issued, for a total value of \$970.Two simultaneous equations that can be obtained from this information are:

$$x + y = 66$$

$$10x + 20y = 970$$

(a) What do x and y represent in these equations?

(b) Solve the equations to work out how many of each kind of note were issued.

4. 1000 tickets were sold. Adult tickets cost \$8.50, children's cost \$4.50, and a total of \$5700 was collected. How many tickets of each kind were sold?

5. Samantha has 30 coins, consisting of 20c and 50c, which total $13.50. How many of each does she have?

6. Simita has 25 coins, consisting of 10c and 5c, which total $2.25. How many of each does she have?

7. 7 cups of coffee and 4 pieces of toast cost $20. 5 cups of coffee and 3 pieces of toast cost $14.50. Find the cost of each item

8. 3 books and 2 pens cost $8.
   5 books and 3 pens cost $13.
   Find the total cost of one book and one pen.

9. If the cost of 3 chocolates and 2 cookies is $22 and that of 2 chocolates and 3 cookies is $18, what is the cost of cookies?

10. 2 tables and 3 chairs together cost $1900 whereas 3 tables and 2 chairs together cost $2600 . Find the cost of a table and a chair.

11. The sum weights of Tama and Vara is 60 kg and the difference is 20 kg. Find the weights of Tama and Vara.

12. In a farm, there are x chickens and y pigs. If the total number of chickens and pigs in the farm is 30 and the total number of legs is 80,

    (a) Form two simultaneous equations in x and y.

    (b) Solve the equations to find the number of chickens and pigs in the farm.

13. John bought some pens and pencils at a book store. If 5 pens and 3 pencils cost $13.00 while 5 pencils and 3 pens cost $11 instead, find the cost of a pen.

14. Tickets at a soccer league game costs $2 for children and $5 for adults. If a total of 500 tickets were sold and the total money collected $1600 for a game, how many adult tickets were sold?

15. Find the cost of each apple and each pear if

- 4 apples and 3 pears cost $4.80
- 3 apples and 5 pears cost $5.25