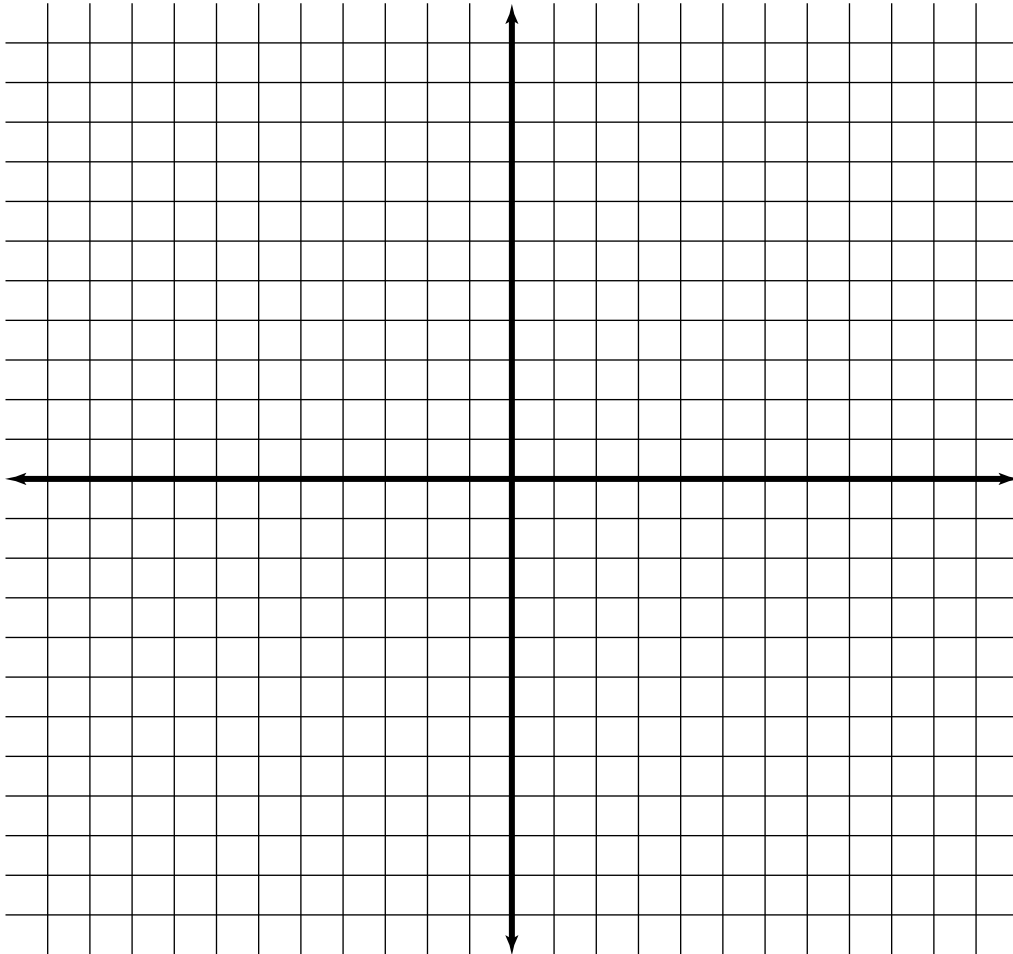INTERLEAVED WORKSHEET #1 MAY, 2018

1. Using the grid sheet below, label the two axis and call them either x or y. (3 Marks)

   a. Represent a scale of 1cm to 2 units on both axis. (2 Marks)
   b. Plot the following points. (-4, -4), (-2, -2) (2, 2), (4, 4), (6, 6), (8, 8). (3 Marks)
   c. Determine the gradient of your graph. (2 Marks)

   d. Hence, state the equation of the straight line. (1 Mark)

2. The diagram below is not drawn to scale.
   a. Determine the missing angles A and F and give reason (s) for your answer (4 Marks)
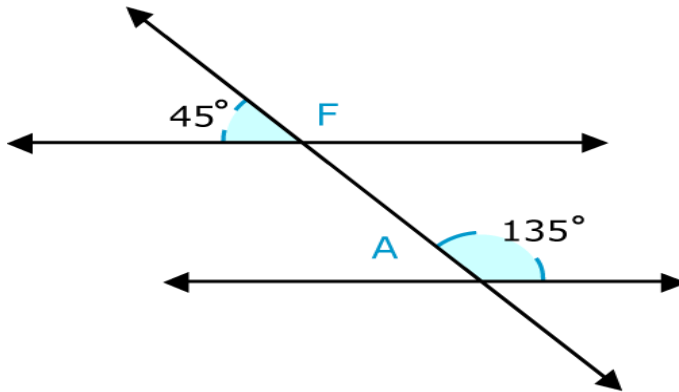
   b. Calculate and show working for item d:
      i.   -2 + 4   ii. 5 – (-2)   iii. -3 X (-5)   iv. ½ + ¼

   c. Approximate **0.0137548**:
      i.   Correct to 3 dp

      ii.   Correct to 3 significant figures

   d. Solve the following inequality. 3x – 1 < 11 and represent it on a number line.

1. Given the equation. Z = ¼ x + 2 and x can take the values of (-1, 0, 1, 2, and 3). Find the values of Z which corresponds to each x values. (5 Marks)

   a. Write your answers above as a set of ordered pairs. (3 Marks)

   b. Is your relation above a function? Give a reason (2 Marks)_____

   _____

2. Determine all the missing angles and provide reason(s) (12 Marks)
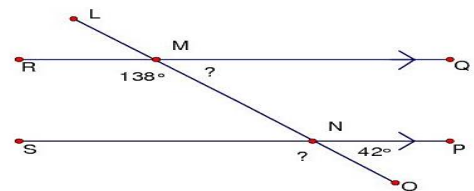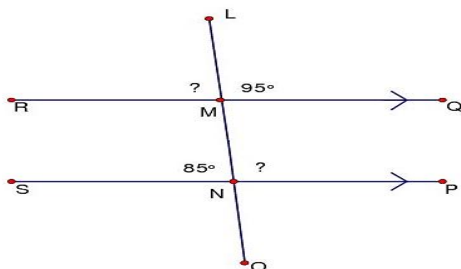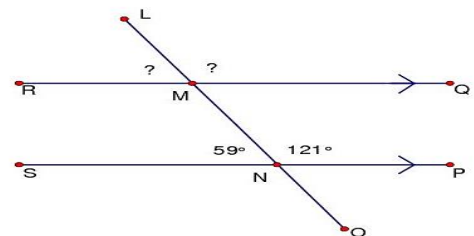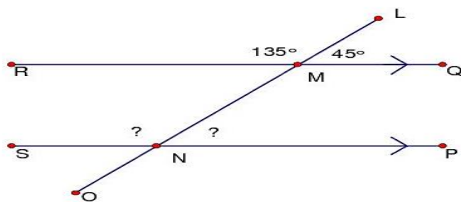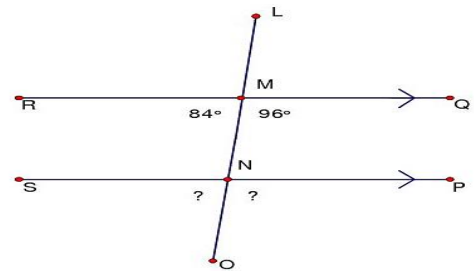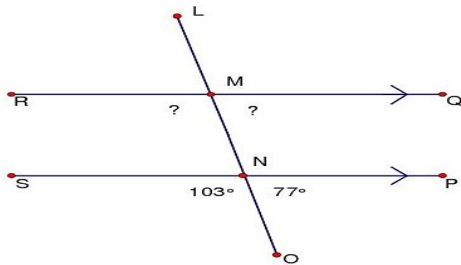
3. Determine the following:
   a. Convert 0.25 to fraction

   b. Convert 2/3 to percentage

   c. Convert 9/2 to a mixed fraction

   d. $9 \div (-3)$

   e. $-5 + (-3)$

   f. Convert 0.8 to percentage

   g. Given the equation $2p = r - 2$. If $2 \times p = 10$. Solve for the value of r.

1.

a. The function f with domain, X = (1, 2, 3) is given by
f (x) = ½ x – 3.

(I) What is the value of f (1)? (1 Mark)

(ii) Find the value of x for which f (x) = -2. (2 Marks)

(iii) An ordered par for the function is expressed in the form (x, y). Using your answers to (a) (i) and (a) (ii), or otherwise, list the ordered pairs for the function, f. (2 Marks)

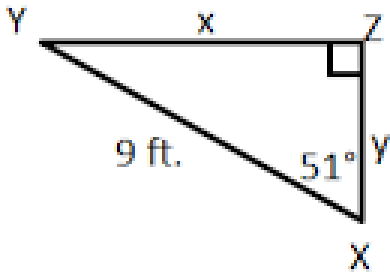b. Given the functions; f (x) = ¼ x -7 and f (x) = 1/4x +7. Sketch the graphs on the sheet below.
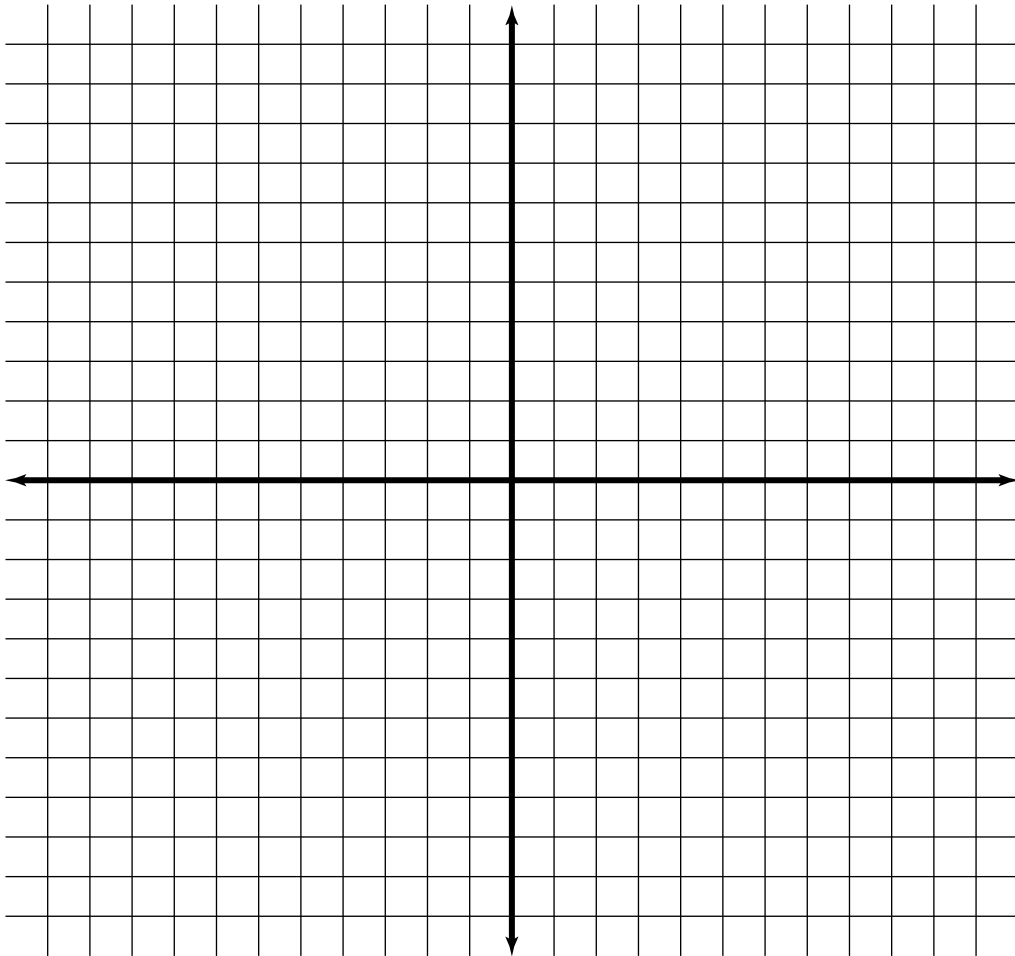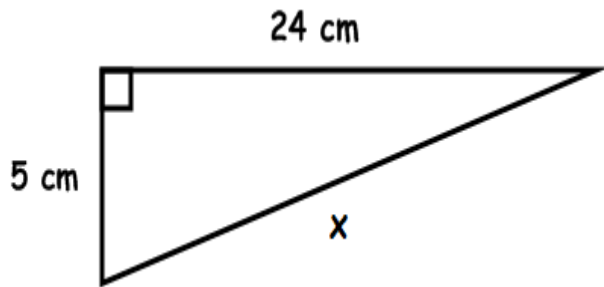
(i) State the scale for both axis.

(ii) State whether the lines are parallel, perpendicular or intersecting and provide reason.

Prepared by Jermaine Dunn

2.

a. Calculate the value of the missing side (x).

24 cm

5 cm

x

Y ____ x ____ Z

9 ft.   51° Y

X

(i) Give a reason for your selected strategy(s) in (a) above. _____

_____

a. Convert 0.5 to fraction

b. Convert 1/3 to percentage

c. Convert 8/5 to a mixed fraction

d. -10 ÷ (-2)

e. -5 - (-3)

f. Write 0.001789 in standard form

Prepared by Jermaine Dunn

1.

a. A straight line has the point A with coordinates (-3, 5) and a gradient of -2.

(i) Determine the equation of the straight line. (3 Marks)

(ii) The line has another point B which is eight points away from point A. State the coordinates of this point. (2 Marks)

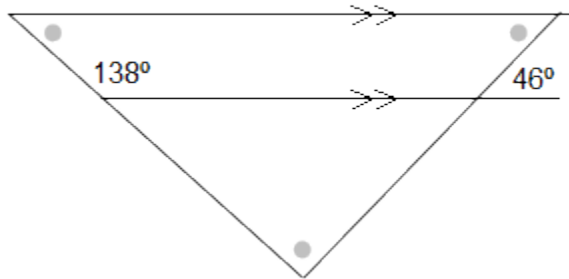(iii) Hence, Calculate the midpoint of line segment AB. (3 Marks)

b. Calculate the missing side (a)

#1-2

B
39°
C
a
A
6 in.   C

15m
7m
a
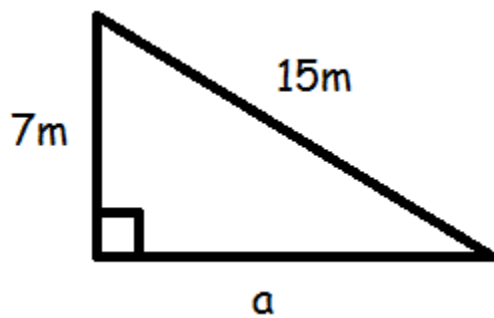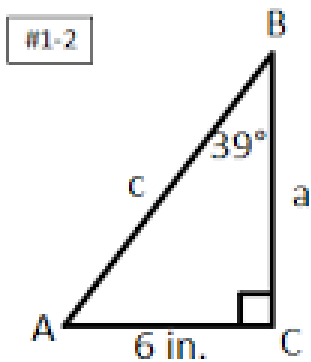
(i) Give a reason for you selected strategy(s) in (b) above. _____

_____

c. Calculate the missing internal angles of the triangle below: (5 Marks)

2.

a. Simplify the following: (2 Marks each)

(i) $U \div U^2$ Where U = 3

(ii) 1/5 X 2/3

(iii) (-6P – 8) + (2p – 6)

(iv) $8^3 \div 8^{-3}$

(v) z^4 X z^{-2}

(vi) Convert 2/5 to percentage