The New English Private School (NEPS)

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Name _____ 3rd Quarter Date _____2020 Subject Math
Worksheet 1 (5%) Grade 9 Section ____ Teacher's Name: Mr. Assefa

I. Workout show the necessary steps neatly and clearly.

1. What is the difference between relation and function.
2. Let f = { (2, 3), (4, 9), (3, -8)} and g = {(1, 2), (2, 5), (3, 10)(4, 17)}. Determine a.
   a. -2f
   b. fg
   a. fg(2)
   b. g^2
3. Draw the graph of R = { (x, y): y < x – 1 and y > -x + 2) and find its domain and range.
4. Find the domain and range of each of the following.
   a. f(x) = $\sqrt{x+8}$
   b. f(x) = $\frac{2}{4x-5}$
5. Let f(x) = $\frac{2}{x-1}$ and $g(x) = \frac{2x-2}{3x+3}$, find
   a. f + g
   b. fg
   c. domain of f + g and fg
6. For the quadratic function given below:
   a. Find vertex, axis of symmetry maximum or minimum
   b. Sketch the graph
   i. f(x) = $4x^2 + 2x + 4$
   ii. $-6 – x^2 – 4x$
7. State the name of the first 10 polygons.
8. How many lines of symmetry does a regular n – sided polygon. Give two examples.
9. What is the difference between inscribed and circumscribed polygons.
10. The radius of a regular 12 sided polygon is 20 cm, find:
    a. Its perimeter
    b. Area
    c. Apothem
    d. Side length

11. Find the number of sides of a regular polygon if the measure of each of its interior angle is 160^0
12. How many number of interior angles, diagonals and triangles can be drawn from n – sided polygon?
13. State the general properties of quadratic function of the form
    $f(x) = ax^2 + c$ when
    a. $a > 0$
    b. $a < 0$

Submission Date Friday 27, March 2020

Parents/Guardians signature_____