Assignment for Algebra

Question 1

Give expressions for the following cases.

(a) 71 added to m

(b) 99 subtracted from m

(c) n multiplied by 8

(d) p divided by 10

(e) 11 subtracted from $-x$

(f) $-y$ multiplied by 1

(g) $-x$ divided by 11

(h) z multiplied by -5

Question 2

Which out of the following are expressions with both variable and numbers only?

(a) p -9

(b) $(11 \times 20) - 8x$

(c) $5 (21 - 7) + 7 \times 2 + p$

(d) 1

(e) $11x$-1

(f) 5 +4+3+2+1

(g) $(7 \times 8) - (8 \times 7) - 45 + 11x$

i) 2 times z from which 11 is subtracted

Question 3

Get the algebraic expressions in the following cases using variables, constants and arithmetic operations.

(i) Subtraction of z from y.

(ii) One-half of the sum of numbers a and b.

(iii) The number y multiplied by itself.

(iv) One-Eighted of the product of numbers x and y.

(v) Numbers p , q and r both squared and added.

(vi) Number 5 added to three times the product of number m and n.

(vii) Product of numbers y and z subtracted from 10.

(viii)Sum of numbers x and y subtracted from their product.

Question 4

(a) Complete the table and by inspection of the table, find the solution to the equation $x -11 = 6$

x	11	12	13	14	15	16	17	18	19	20	...
x - 11	–	–	–	–	–	–	–	–	–	–	–

(b) Complete the table and by inspection of the table, find the solution to the equation $2z = 44$

z	14	15	16	17	18	19	20	21	22	...
$2z$	–	–	–	–	–	–	–	–	–	–

(c) Complete the table and find the solution of the equation z/5 = 6 using the table.

z	5	10	15	20	25	30	35	40	45	...
z/5	1	2	3	–	–	–	–	–	–	–

Question 5

Complete the entries in the third column of the table.

S. No.	Equation	Value of variable	Equation satisfied Yes/No
(a)	$y/11 = 4$	$y = 44$	-
(b)	$y/11 = 4$	$y = 33$	-
(c)	$y/11 = 4$	$y = 22$	-
(d)	$4l+2 = 22$	$l = 20$	-
(e)	$4l +2= 22$	$l = 80$	-
(f)	$4l +2= 22$	$l = 5$	-
(g)	$n + 20 = 29$	$b =5$	-
(h)	$n + 20 = 29$	$b = 9$	-
(i)	$n + 20 = 29$	$b = 4$	-
(j)	$x - 8 = 11$	$x = 13$	-
(k)	$x - 8 = 11$	$X = 19$	-
(l)	$x - 8 = 11$	$x = 0$	-
(m)	$q + 3 = 0$	$p = -3$	-

(n)	$q + 3 = 0$	$p = 1$	-
(o)	$q + 3 = 0$	$p = 0$	-
(p)	$q + 3 = 0$	$P = -1$	-
(q)	$q + 3 = 0$	$P = -2$	-

Answer

1)
a)m+71
b)m-99
c) 8n
d) p/10
e) -x-11
f) -y
g)-x/11
h)-5z
i) 2z-11

2) Both number and variable expression are a,b,c,e,g

3)
i) y-z
ii) (1/2)(a+b)
iii) y^2
iv) xy/8
v)
$p^2 + q^2 + r^2$
vi)3mn+5
vii) 10-yz
viii) xy –(x+y)