Master Maths 10 Worksheet 26
Linear Relationships

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Name: _____

1. Complete the table of values for each of the following rules.

(a) $y = 3x + 1$

x	-3	-2	-1	0	1	2	3
y							

(b) $m = 4 - 2n$

n	-3	-2	-1	0	1	2	3
m							

2. Find the rule connecting the variables in the tables below.

(a)

x	-3	-2	-1	0	1	2	3
y	-9	-7	-5	-3	-1	1	3

(b)

A	-3	-2	-1	0	1	2	3
B	-2	1	4	7	10	13	16

(c)

c	-3	-2	-1	0	1	2	3
d	17	13	9	5	1	-3	-7

(d)

P	0	2	7	10	12	22	30
Q	5	9	19	25	29	49	65

3. Complete the table of values below for the relationship shown.

$M = 6N + 25$

N	0	5	8		15		25
M				85		157	

4. The fuel consumption (L/hr) of a boat was measured for different numbers of passengers and shown in the table below.
N = the number of passengers.
F = fuel consumption (L/hr)

N	0	1	2	3	4	5	6
F	5	5.5	6	6.5	7	7.5	8

(a) Complete the equation for this relationship.

$F =$

(b) Find the fuel consumption for the following number of passengers.

(i) 8 passengers (ii) 15 passengers

(c) Find the number of passengers if the fuel consumption was 25 L/hr.