

# Master Maths Worksheet 78

## Linear Relationships 2

# 78

**Name:** \_\_\_\_\_

1. Sparkey is an electrician who charges \$25 per hour plus \$30 travelling charge.

(a) Complete the table below showing the charge  $c$  for working  $t$  hours.

$t$	1	2	3	4	5
$c$					

(b) Find the **rule** connecting  $t$  and  $c$ .

$c =$

(c) What is his charge for a job taking 8 hours?

2. Another electrician, Plugger, charges \$30 per hour with no travelling charge.

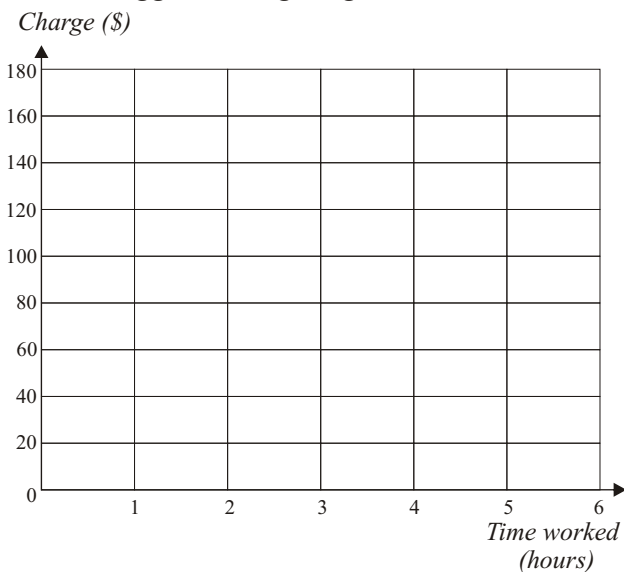
(a) Complete this table showing Plugger's charges.

$t$	1	2	3	4	5
$c$					

(b) Find the **rule** for Plugger's charges.

$c =$

3. On the axes provided plot each of Sparkey's and Plugger's charges against time worked.



For what **length of working time** would each electrician charge the **same** amount?

4. The cost of purchasing tickets for a concert was \$60 per ticket together with a \$10 booking fee.

Example: The cost of 8 tickets is  
 $8 \times 60 + 10 = \$490$

(a) Complete the following table showing the cost  $c$  for purchasing  $n$  tickets.

$n$	1	2	3	4	5
$c$					

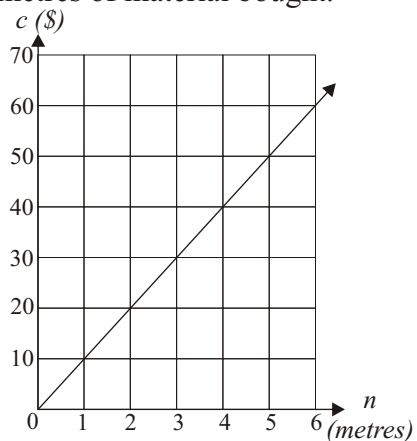
(b) Find the **rule** connecting  $n$  and  $c$ .

$c =$

(c) Use this rule to find the cost of purchasing 25 tickets.

(d) How many tickets could be bought for \$730?

5. The cost  $c$  in dollars of buying a length of a particular curtain material is given by the graph below, where  $n$  represents the number of metres of material bought.



(a) How much would it cost to purchase 5 metres of material?

(b) Find the **rule** connecting 'n' and 'c'.

$c =$

(c) How much material could you buy for \$280?