1 Kieron has 13 workers he can use for a job.

He knows that 6 workers would take $14\frac{1}{2}$ days to complete this job.

Show that Kieron has enough workers to finish this job in less than 7 days.

$\times \frac{13}{6}$ ↳ 6 workers : 14.5 days ↳ 13 workers : 6.69... days ↓ $\times \frac{6}{13}$

Number of workers and days taken are inversely proportional.

$14.5 \times 6 = 87$ (1)

$87 \div 13 = 6.69...$ (1)

So 13 workers can complete the job in 6.69... days, which is less than 7 days. (1)

(Total for Question 1 is 3 marks)

2 p is inversely proportional to t

Complete the table of values.

t	100	25	20	2
p	1	4	5	50

p is inversely proportional to t

$p = \frac{k}{t}$ → sub $p=1, t=100$ to find k

$1 = \frac{k}{100}$

$k = 100$

$p = \frac{100}{t}$ (1)

$t=25$: $p = \frac{100}{25} = 4$ (1)

$p=5$: $5 = \frac{100}{t} \Rightarrow t = 20$ (1)

$t=2$: $p = \frac{100}{2} = 50$

(Total for Question 2 is 3 marks)