Assessment 3
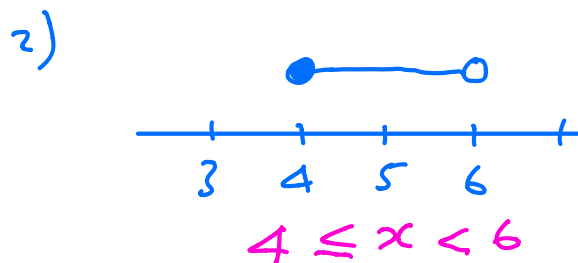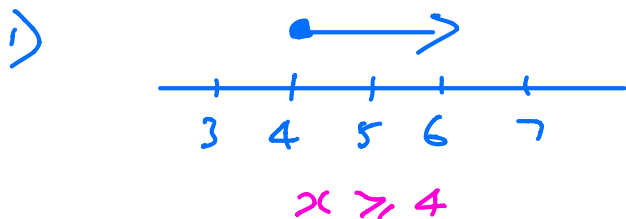
1) Table of values - plot graph

2) Find equation of a line

3) Parallel Lines

4) Midpoints

5) Eqns of perpendicular lines

6) Inequalities - represent on line
   - solve inequality

7) Reading from graph

8) Transformations - carry out
   - and recognise

9) — " — Reflection, Rotation Enlargement

10) — " — Translation

11) Form and solve simultaneous eqns
    eg family cinema trip

12) Simultaneous eqns

13) Inequality - algebraic

14) Graphical Inequality wk 28 Jan Tue

Revision

Inequalities

1)

$$x \geqslant 4$$

2)

$$4 \leq x < 6$$

3) Solve

$$2x - 3 < 11$$

$$2x < 11 + 3$$

$$2x < 14$$

$$x < \frac{14}{2}$$

$$\underline{x < 7}$$

4) Solve

$$8x - 7 \geqslant 5x + 5$$

$$8x - 5x \geqslant +5 + 7$$

$$3x \geqslant 12$$

$$x \geqslant \frac{12}{3}$$

$$\underline{x \geqslant 4}$$

Graphical Inequalities

$x = a$ number is a VERTICAL Line

$y = a$ number is a HORIZONTAL Line

Simultaneous Equs

2 adults and 3 children go to cinema. Total cost £31
4 adults and 1 child go for £37
Find cost for adult and for child.

$$2A + 3C = 31 \quad ①$$
$$4A + C = 37 \quad ②$$

② × 3 $$12A + 3C = 111 \quad ③$$

③ − ① $$10A = 80$$

$$A = \frac{80}{10} \qquad A = £8$$

Sub for A in ②
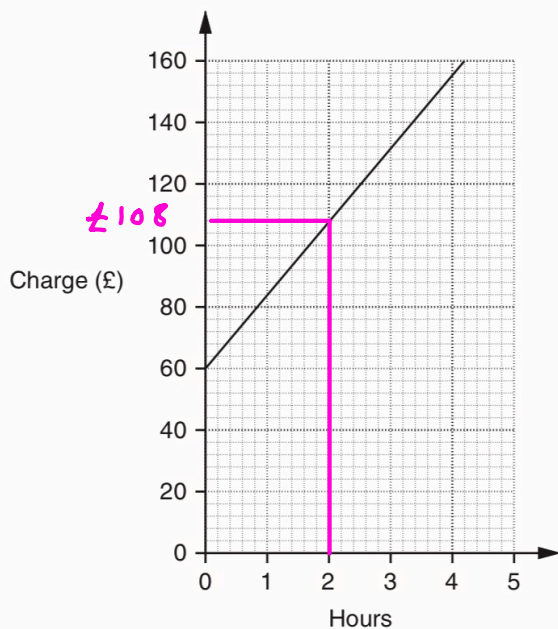
$$4(8) + C = 37$$
$$32 + C = 37$$
$$C = 37 - 32 \qquad C = £5$$
$$C = 5$$

3 An electrician uses this graph to work out how much to charge for each job.

The charge for a job is made up of a fixed fee plus an amount for the time that the job lasts.
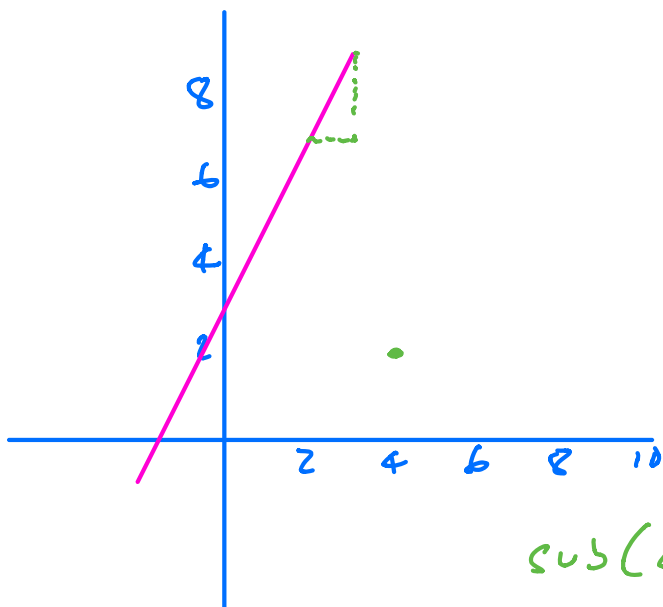
(a) How much is the fixed fee?

£60

(a) £ _____[1]

(b) How much would the electrician charge for a job that lasts 2 hours?

....

£108

(b) £ _____[1]

(c) The charge, £C, can be written as a formula in terms of the fixed fee, the rate per hour and the number of hours, h, for the job.

$y = mx + c$

$y = 2x + 3$

Find parallel line through $(4, 2)$

$y = 2x + c$

sub $(4, 2)$ $2 = 2(4) + c$

$2 = 8 + c$

$2 - 8 = c$

$$-6 = c$$
$$y = 2x - 6$$

$$-6 = c$$
$$y = 2x - 6$$