1. (a) Simplify

$$8x + 5y - 3x + y$$

……………………………
(2)

(b) Solve

$$2x - 5 = 4$$

$x = $ ……………………………
(2)
(Total 4 marks)

2. Simplify

$$5p + 7q + 3p - 2q$$

………………………….
(Total 2 marks)

3.   Expand and simplify

$$2(3x + 4) - 3(4x - 5)$$

....
(Total 2 marks)

4.   (a)   Simplify $p^3 \times p^2$

....
(1)

(b)   Simplify

$$\frac{q^3 \times q^4 \times q}{q^2}$$

....
(1)
(Total 2 marks)

5.   Simplify $5x + 3y - y + 2x$

…………………………….
(Total 2 marks)

6. (a) Simplify $q + q + q + q$

…………………….

(1)

(b) Simplify $7x + 3y + 2x - 2y$

…………………….

(2)

(Total 3 marks)

7. Expand and simplify $(x + 1)(x - 7)$

....

(Total 2 marks)

1. (a) $5x + 6y$ 2

B2 cao
B1 for either 5x or 6y seen

(b) $x = 4.5$ oe   2

$2x = 9$

M1 for 2x = 4 + 5 or better
A1 cao

[4]

2. $8p + 5q$ 2

$5p + 3p - 2q + 7q$

           B2 cao (B1 for 8p or 5q seen)

                                                                                                      [2]

3. $-6x + 23$ 2

$6x + 8 - 12x + 15$

           M1 for 3 correct terms

           A1 cao

                                                                                                                 [2]

4.   (a) p^5 1

           B1 cao

    (b) q^6 1

           B1 cao

                                                                                                              [2]

5. $7x + 2y$ 2

           B2 (B1 for 7x or 2y (NOT $-2y$) seen)

                                                                                                            [2]

6.   (a) $4q$ 1

           B1 for 4q or q4

    (b) $9x + y$ 2

           B2 (B1 for either 9x or y seen)

                                                                                                              [3]

7. $x^2 - 7x + x - 7$

$x^2 - 6x - 7$ 2

           M1 for 3 correct terms in an expression of no more than 4 terms

           A1 cao

                                                                                                              [2]

1.   Full marks were rarely seen in this question, many candidates showing a definite weakness in manipulative algebra. In part (a) the majority of candidates scored either 1 or 2 marks. 11 was a popular coefficient of x and $-6y$, $+4y$ and even $5y^2$ appeared regularly as the second term. In part (b) many candidates solved the equation correctly, often employing trial and improvement methods.

2.   Generally well done with most candidates scoring at least one mark, usually for $8p$. Common errors were $7p$, $-2q$, $9q$, $13pq$ and in a minority of cases $8p + 7q - 2q$ and $8p5q$, without a "+" sign in their answer.

3.   The majority of candidates showed an ability to expand brackets by multiplication but, as may have been predicted, often failed to multiply the -5 by -3 giving an initial simplification as $6x + 8 - 12x - 15$; this gained 1 mark only. In some case when the first step had been correct, incorrect algebra followed to give answers such as $18x + 23$ and $6x + 23$.

4.   Part (a) was usually answered correctly by many candidates. Answers of p^6 and $6p$ were predictable errors made. A correct answer of q^6 was seen quite often in part (b) however many candidates got as far as $\dfrac{q^8}{q^2}$ and then could either go no further or gave an answer of q^4, dividing the indices. Occasionally a solution of $\dfrac{q^{12}}{q^2} = q^6$ was seen and care was taken to ensure that this scored no marks.

5.   Few candidates scored both marks here. Most candidates were awarded the first mark by correctly writing down $7x$ but then lost the final mark by either writing $7x - 2y$ or just writing $7x$ $2y$. Others tried to continue with their working reaching an answer of $9xy$ and losing the final mark.

6.   Part (a) was generally well answered with 70% of the candidates scoring the available mark. Common incorrect responses included $4 \times q$, $q \times 4$ and q^4.
In part (b) well over 60% of the candidates were able to score 1 mark by reaching either $9x$ or $1y$ (or y) but only the stronger candidates were able to score both marks. $9x - y$ and $9x + 5y$ were frequently seen where candidates felt they had to incorporate the negative sign in their final answer or did not use the negative sign at all. Others missed out a sign altogether ($9x$ $1y$) or went on to combine these part answers into $9xy$ or $10xy$.

7. Many candidates gained one mark in part (a) for correctly working out at least 3 correct terms, often using a tabular method; however inaccuracies in the use of directed numbers saw many go no further. Common incorrect efforts by more able candidates included, $x^2 + 6x$ (or $\pm 8x$), while weaker candidates often gave $x^2 - 6$ or $2x - 6$ as their answer.