

## Answers

Essential Skills 1	
1	$x + 1$
2	$x^{\frac{3}{7}} - 1$
3	$6x^{\frac{4}{5}} - 3$
4	$12x^2 + 8$
5	$5x^3 + 5$
6	$x^{\frac{7}{6}} - 1$
7	$a^{\frac{7}{4}} - 1$
8	$3b^{\frac{11}{12}} + 1$
9	$6c^{\frac{7}{8}} + 12$
10	$x^{-3} - 1$
AQ	(a) $x^{\frac{3}{4}} + 1$ (b) 9

Essential Skills 3	
1	$4\sqrt{5}$
2	$\sqrt{3}$
3	$2\sqrt{2}$
4	$-4\sqrt{6}$
5	$3\sqrt{10}$
6	0
7	$3\sqrt{11}$
8	$5\sqrt{5}$
9	$-5\sqrt{2}$
10	0
AQ	$2\sqrt{2}$

Essential Skills 2	
1	$(x + 4)^2 - 19$
2	$(x - 3)^2 - 10$
3	$(x + 6)^2 - 16$
4	$(x - 9)^2 - 81$
5	$(x - 1)^2 + 6$
6	$(x + 5)^2 - 12$
7	$(x + 2)^2 - 13$
8	$(x - 3)^2 - 3$
9	$(x + 7)^2 - 74$
10	$(x - 2)^2 - 15$
AQ	(a) $(x + 3)^2 - 14$ (b) TP (-3, -14) Y intercept (0, -5) (c) B(2, 11)

Essential Skills 4	
1	$\frac{5x + 11}{(x + 4)(x + 1)}$
2	$\frac{7x - 7}{(x - 5)(x + 2)}$
3	$\frac{-2x + 1}{(x + 2)(x + 7)}$
4	$\frac{2x - 4}{(2x - 1)(x - 1)}$
5	$\frac{4x - 4}{(x + 3)(3x + 1)}$
6	$\frac{7x + 4}{10}$
7	$\frac{7b + 15}{15}$
8	$\frac{6p + 2}{(p - 1)(3p + 5)}$
9	$\frac{7}{6}$
10	$\frac{3 + x}{x^2}$
AQ	(a) $\frac{x}{4}$ (b) $\frac{5x+6}{12}$