

Answers

Essential Skills 9	
1	$x^3 + 5x^2 + 7x + 3$
2	$3x^3 + 11x^2 + 9x - 2$
3	$2x^3 - 5x^2 + 5x + 4$
4	$x^3 + 3x^2 - 8x - 4$
5	$x^3 - 8x^2 - 25x + 50$
6	$2x^3 - 5x^2 - 6x + 9$
7	$6x^3 + 10x^2 - 7x + 1$
8	$x^3 - 8x^2 + 13x - 6$
9	$3x^3 + 25x^2 + 4x - 32$
10	$2x^3 - 10x^2 - 7x - 4$
AQ	(a) $x^3 - 7x - 6$ (b) $x^3 - 3x + 2$ (c) $8x^3 - 36x^2 - 18x - 27$

Essential Skills 11	
1	$\frac{14}{15}$
2	$1\frac{29}{35}$
3	7
4	$3\frac{13}{14}$
5	$2\frac{7}{24}$
6	$10\frac{2}{9}$
7	$2\frac{2}{3}$
8	$\frac{11}{20}$
9	$1\frac{13}{18}$
10	$1\frac{13}{16}$
AQ	$2\frac{1}{3}$ cups

Essential Skills 10	
1	$(a + 2)(a + 4)$
2	$(b + 5)(b + 6)$
3	$(c - 2)(c - 6)$
4	$(d - 5)(d - 8)$
5	$(e - 7)(e + 8)$
6	$(f + 6)(f - 9)$
7	$(g + 6)(g + 9)$
8	$(h - 2)(h + 15)$
9	$(j + 5)(j - 11)$
10	$3(k + 9)(k - 7)$
AQ	(a) $(x + 4)(x - 4)$ (b) $\frac{x-7}{x-4}$

Essential Skills 12	
1	$\bar{x} = 18, s = 3.35$
2	$\bar{x} = 8, s = 2.58$
3	$\bar{x} = 3 \cdot 6, s = 1.56$
4	$\bar{x} = 108, s = 3.4$
5	$\bar{x} = 55, s = 5.6$
6	$\bar{x} = 18, s = 3.35$
7	$\bar{x} = 2, s = 1.15$
8	$\bar{x} = 37, s = 2.92$
9	$\bar{x} = 1301, s = 4.43$
10	$\bar{x} = 38 \cdot 6, s = 5.13$
AQ	$\bar{x} = 119, s = 1.58$ (b) Competition (c) Mean up by 4, Standard deviation the same.