

6 Year 8 Term 1 Week 6 Answers (Last modified: January 13, 2012)

6.1 Algebra (Chapter Review)

E 6.1.1 (1) $9mn + 9m^2 + 12n^2$; (2) $2x^2 + 5x$; (3) $3a^2 + 13$; (4) $xy^2 - 3xy$; (5) $2x^2 + 10x$;

E 6.1.2 (1) $36x^3y^4$; (2) $60x^6y^4$; (3) $72a^5b^4$; (4) $18m^{18}$; (5) $120p^7q^9$;

E 6.1.3 (1) 4; (2) $\frac{5y^7}{x}$; (3) $\frac{3}{4}x^4$; (4) x^4y ; (5) $24q^3$;

E 6.1.4 (1) x^6 ; (2) $81a^{12}$; (3) $16x^4y^6$; (4) $27x^{15}y^{18}$; (5) $m^2 - 6m + 9$; (6) $a^4 + 4a^2b^3 + 4b^6$;

E 6.1.5 (1) $9x + 15$; (2) $54x + 18y^2$; (3) $4x^2 + 2x$; (4) $14a + 9$; (5) $11x^2 - 19xy$;

(6) $18a^3b^2 + 27a^2b^3$;

E 6.1.6 (1) $-6a + 2$; (2) $-22x + 72$; (3) $6a^3b^2c^2 + 9a^2b^3c^2$; (4) $15x^2 - 7xy - 6y^2$;

(5) $3a^2b + 5ab^3 + 21b^2$; (6) $m^3 + 6m^2n + 12mn^2 + 8n^3$;

E 6.1.7 (1) 3; (2) 2a; (3) 2; (4) ab;

E 6.1.8 (1) $2p + 15q$; (2) $11m^2n + 3mn^3$; (3) $21a^3b^2$; (4) $-3a^2 + 4ab$; (5) $3p^8$;

E 6.1.9 (1) $5(3 + a - 7a^2)$; (2) $3xy(2 + y + 4xy^2)$; (3) $2m(12n + 2p - 3np)$;

(4) $3ab(c + 2 + 4a)$; (5) $ab(ab^3 + a - b)$;

E 6.1.10 (1) $9x$; (2) $20y + 6$; (3) $6x - 2$; (4) $45 - 17y$; (5) $50 - 120x + 72x^2$;

E 6.1.11 (1) $\frac{11x}{12}$; (2) $\frac{5x}{6}$; (3) $1\frac{4}{15}m$; (4) $\frac{3b}{4}$;

E 6.1.12 (1) $\frac{xy}{6}$; (2) 1; (3) 1; (4) 3;

E 6.1.13 (1) $\frac{x^2}{6}$; (2) $3\frac{1}{3}$; (3) $\frac{6}{5x^2}$; (4) $\frac{4y^2}{9}$;

E 6.1.14 (1) $\frac{7a-7}{12}$; (2) $\frac{8x-4}{15}$; (3) $-2\frac{1}{6}$; (4) $\frac{52a-1}{24}$;

E 6.1.15 (1) $x^2 + 7x + 10$; (2) $2x^2 + 3x - 27$; (3) $4a^2 - 9$; (4) $-8x^2 + 42x - 27$;

(5) $36x^2 - 48x - 20$; (6) $12x^2 + 6x - 60$; (7) $36x^2 - 96xy + 64y^2$; (8) $8x$;

E 6.1.16 (1) a. $49x^2 + 42x + 9 \text{ cm}^2$, b. $25x^2 + 30x \text{ cm}^2$, c. $12x^2 + 9x \text{ cm}^2$;

(2) $P = \frac{5x+10}{2} \text{ cm}$, $A = \frac{(x+2)^2}{4}$; (3) $T = \frac{30x+120}{x^2+6x}$; (4) $\frac{my+nx}{x+y}$; (5) $\$16(2a + 3)$;

(6) ($\frac{\$p+60}{6}$); (7) a. $3a^2b^4$; b. $5a^4$; c. $27a^9$; d. $\frac{1}{3x}$;

(8) a. $7xy^2(5xy - 1)$; b. $2ab(ab + 2a - 4b)$; c. $4a(bc + 2ab + 4a^2c)$;

d. $3xy(2 + x^2 - 4xy^2)$;

(9) a. $6p^2 - 24p + 9$; b. $3x^2 + 12x + 14$; c. $7x^2 - 2x + 3$;

E 6.1.17 (1) $5a + 6$; (2) $20a - 28$; (3) $7ab$; (4) $8c^2 - 9c$; (5) $12x^3y^3$; (6) $-64a^{12}$;

(7) $(2a - b)^2$; (8) $5x^4 - 46x^2 + 9$; (9) 21; (10) $23x - 3$; (11) $\frac{7x}{12}$; (12) $4\frac{2}{3}\text{hr}$;

(13) $5x + 30$; (14) 0.125 Or $\frac{1}{8}$; (15) $\$1.15M$; (16) $5x^4 - 46x^2 + 9$;

(17) $P = 10x + 8 \text{ cm}$, $A = 6x^2 + 8x \text{ cm}^2$; (18) $\frac{7x-8}{12}$; (19) $\frac{25x-6}{12}$; (20) $\frac{24x+7}{6}$;