



A 다항식의 연산

- 01 $-x^4+7x^2+x-6$ 02 $-6+x+7x^2-x^4$
 03 $6x^2+3xy+5x$ 04 $-6x^3+3x^2-x+5$
 05 $-x^3+x^2+x+4$ 06 $7x^3-17x^2+8x+12$
 07 $-10a^3x^3$ 08 x^8y 09 $-5x^2y-5xy+2xy^2$
 10 $a^4-a^2b-3a^2-2b^2-3b$ 11 $9x^2+6x+1$
 12 $x^2+7x+10$ 13 $6x^2-11x-10$
 14 $x^3+10x^2+27x+18$ 15 x^3-3x^2+3x-1
 16 x^3+8 17 $a^2+4b^2+c^2-4ab-4bc+2ca$
 18 $a^3+b^3-c^3+3abc$ 19 (1) 13 (2) 45
 20 (1) 9 (2) 13 21 8 22 7 23 83 24 125
 25 -110 26 140 27 -29
 28 몫: $2x-6$, 나머지: $-x+2$
 29 몫: $-2x-6$, 나머지: $-27x+12$
 30 $2x^2+5x-1$ 31 $2ab^2+4a^2-5b$
 32 몫: $x^2+6x+12$, 나머지: 19
 33 몫: $2x^2-3x-3$, 나머지: 4 34 ③ 35 ① 36 ④
 37 ④ 38 ① 39 ④ 40 ④ 41 ③ 42 ① 43 5
 44 3 45 ① 46 10 47 6 48 6 49 ② 50 36
 51 ⑤ 52 ⑤ 53 ④ 54 256 55 ④ 56 ④ 57 195
 58 270 59 ④ 60 ③ 61 ② 62 ① 63 100 64 ②
 65 ② 66 ③ 67 ③ 68 ⑤ 69 ④ 70 ② 71 ③
 72 154 73 ④ 74 ④ 75 23 76 ⑤ 77 7 78 2
 79 ① 80 ④ 81 ④ 82 ④ 83 $-\frac{19\sqrt{3}}{4}$ 84 $-\sqrt{3}$
 85 $-5x^3-27y^3+20x+14$
 86 $\angle B=90^\circ$ 인 직각삼각형 87 40 88 148 89 ②
 90 ② 91 ③

B 항등식과 나머지정리

- 01 $\perp, \supset, \square$ 02 $a=-3, b=3, c=-6$
 03 $a=-1, b=4, c=-5$ 04 $a=1, b=2$
 05 $a=\frac{5}{3}, b=-\frac{8}{3}, c=4$ 06 1 07 28 08 $\frac{15}{4}$ 09 -13
 10 4 11 $\perp, \supset$ 12 2, 2, $-1, -1, -8$
 13 몫: x^2+6x-8 , 나머지: 11
 14 17 15 ① 16 ① 17 ③ 18 ① 19 256 20 ③
 21 ① 22 $\frac{5^{25}-3}{2}$ 23 ② 24 ④ 25 ④ 26 ⑤

- 27 ⑤ 28 ⑤ 29 6 30 ② 31 52 32 ⑤ 33 ②
 34 22 35 16 36 ③ 37 ⑤ 38 ① 39 ① 40 ③
 41 ② 42 ① 43 46 44 ③ 45 91 46 ③ 47 8
 48 ⑤ 49 28 50 ② 51 10 52 ② 53 106 54 ①
 55 ② 56 3 57 ② 58 ④ 59 ① 60 24 61 ④
 62 ③ 63 ② 64 ③ 65 ③ 66 9 67 ④ 68 ④
 69 ① 70 40 71 ① 72 2, 521 73 -4 74 -1 75 13
 76 8 77 $a=2, b=-1, c=1, f(9)=1910$ 78 ③
 79 33 80 13 81 ③ 82 ④ 83 ④ 84 54

C 인수분해

- 01 $3y(xy-3)$ 02 $-(a+b)(c-d)$ 03 $(2x+1)^2$
 04 $(5a-2b)^2$ 05 $(3x+y)(3x-y)$
 06 $(x+y)(x-y+2)$ 07 $(x+4)(x+7)$
 08 $(3x-5y)(2x+y)$ 09 $(x-y-z)^2$ 10 $(x+y+1)^2$
 11 $(3x-y)^3$ 12 $(a+1)(a^2-a+1)$
 13 $(2a-3b)(4a^2+6ab+9b^2)$
 14 $(a+b-c)(a^2+b^2+c^2-ab+bc+ca)$
 15 $(x-1)(x-4)(x^2-5x-2)$ 16 $-4(3x+5)$
 17 $(x+1)(x-1)(x+2)(x-2)$
 18 $(a+b)(a-b)(a+c)$ 19 $(x+2y-2)(x-y+1)$
 20 $(x+1)(x-2)(x^2-2x+3)$
 21 -34 22 100 23 ⑤ 24 ⑤ 25 ④ 26 ②
 27 ④ 28 ② 29 8 30 ⑤ 31 ④ 32 ③ 33 ⑤
 34 $(x-1)(x+1)(x+4)(x+6)$ 35 ② 36 ④ 37 ①
 38 2 39 ③ 40 7 41 ① 42 ② 43 ⑤ 44 ⑤
 45 $(a+b)(b+c)(c+a)$ 46 ②, ④ 47 ④ 48 ③
 49 25 50 ② 51 ③ 52 ② 53 ② 54 ① 55 ③
 56 ② 57 ④ 58 ③ 59 ④ 60 정삼각형 61 ②
 62 ④ 63 ④ 64 ② 65 ③ 66 ④ 67 ③ 68 ③
 69 $(a+b)(b+c)(c+a)$ 70 정삼각형
 71 $k=16, A=x^2-5$ 72 (1) $(x^2+3x+1)^2$ (2) 1721
 73 $2x^2+2$ 74 18 75 $\frac{\sqrt{2}}{2}$ 76 ⑤ 77 146

D 복소수

01 $2i$ 02 $3\sqrt{3}i$

03 (1) $\square$, $\square$, $\square$, $\square$, $\square$ (2) $\square$, $\square$, $\square$, $\square$ (3) $\square$, $\square$

04 실수부분 : 8, 허수부분 : 2

05 실수부분 : 0, 허수부분 : -4

06 $a=3, b=-1$ 07 $a=3, b=2$ 08 $1-2i$

09 $5+3i$ 10 -12 11 $-\frac{5}{4}i$

12 $2+5i$ 13 $5-5i$ 14 $22-21i$

15 $\frac{5-i}{2}$ 16 (1) 0 (2) $\frac{1}{5}-\frac{3}{5}i$ 17 $-i$

18 1 19 1 20 0 21 $\pm\sqrt{7}i$ 22 $\pm 2\sqrt{5}i$

23 -6 24 $\sqrt{6}i$ 25 $\sqrt{2}i$ 26 $-\sqrt{5}i$ 27 ③ 28 ③

29 ④ 30 ④ 31 ③ 32 ③ 33 ④ 34 ③ 35 ①

36 ⑤ 37 ② 38 ④ 39 ① 40 ② 41 6 42 ③

43 18 44 ③ 45 ② 46 ⑤ 47 ⑤ 48 38 49 ②

50 ② 51 ① 52 ⑤ 53 ③ 54 ⑤ 55 ⑤ 56 ⑤

57 ② 58 ③ 59 ⑤ 60 29 61 ④ 62 ② 63 ⑤

64 ① 65 ④ 66 12 67 ③ 68 16 69 ② 70 ④

71 24 72 25 73 ⑤ 74 ③ 75 ③ 76 ② 77 ④

78 7 79 ⑤ 80 ④ 81 $\frac{1}{3}$ 82 $\frac{37}{5}$ 83 -1 84 0

85 해설 참조 86 ④ 87 ② 88 24 89 94

29 $2\left(x-\frac{2+\sqrt{2}i}{2}\right)\left(x-\frac{2-\sqrt{2}i}{2}\right)$

30 $\left(x-\frac{1+\sqrt{3}i}{2}\right)\left(x-\frac{1-\sqrt{3}i}{2}\right)$ 31 $16\left(x+\frac{i}{2}\right)\left(x-\frac{i}{2}\right)$

32 $3\left(x-\frac{1+\sqrt{2}i}{3}\right)\left(x-\frac{1-\sqrt{2}i}{3}\right)$ 33 $a=-6, b=3$

34 $a=12, b=-76$ 35 $m=-1, n=-20$

36 $m=12, n=-37$ 37 ④ 38 ③ 39 ⑤

40 $-2+2\sqrt{2}, -2-\sqrt{2}$ 41 ④ 42 ⑤ 43 ② 44 ①

45 $\frac{7}{12}$ 46 ④ 47 ③ 48 $x=-4$ 또는 $x=\frac{1+\sqrt{33}}{2}$

49 ② 50 ① 51 ③ 52 16 53 ② 54 ⑤ 55 ③

56 ⑤ 57 ② 58 ④ 59 ⑤ 60 ④ 61 ③ 62 7

63 ② 64 ① 65 ② 66 ② 67 ③ 68 정삼각형

69 ② 70 ④ 71 ⑤ 72 ③ 73 ⑤ 74 8 75 ③

76 ④ 77 ④ 78 14 79 4 80 ④ 81 4 82 ②

83 ④ 84 ④ 85 ④ 86 ① 87 10 88 120 89 ②

90 ① 91 $x=-1\pm\sqrt{13}$ 92 ② 93 ⑤ 94 16

95 ③ 96 ① 97 ① 98 ① 99 1 100 ③ 101 503

102 185 103 ① 104 ③ 105 ④ 106 2 107 10

108 -14 109 $x^2-18x+6=0$

110 서로 다른 두 실근 111 6 112 -1 113 ② 114 ⑤

115 ① 116 6 117 10 118 50

E 이차방정식

01 $x=\pm 5i$ 02 $x=\pm \frac{1}{3}$ 03 $x=\pm 2\sqrt{7}$

04 $x=-2$ 또는 $x=-5$ 05 $x=-\frac{1}{2}$ 또는 $x=\frac{1}{3}$

06 $x=-\frac{1}{3}$ 또는 $x=2$ 07 $x=\frac{1\pm\sqrt{13}}{2}$

08 $x=\frac{-2\pm\sqrt{6}i}{2}$ 09 $x=\frac{7\pm\sqrt{41}}{2}$

10 $x=\frac{-8\pm 5\sqrt{5}i}{9}$ 11 $x=\pm 1$

12 $x=3+\sqrt{10}$ 또는 $x=-3-\sqrt{10}$

13 $x=1\pm\sqrt{2}$ 또는 $x=1$ 14 서로 다른 두 실근

15 중근 16 서로 다른 두 허근

17 (1) $a\leq 2$ (2) $a>2$ (3) $a=2$ (4) $a<2$ 18 $a=\pm 4\sqrt{2}$

19 $a=\frac{49}{4}$ 20 $a=-5$ 또는 $a=-1$

21 (1) 4 (2) 1 (3) $2\sqrt{3}$ (4) 14

22 (1) 10 (2) $\frac{5}{2}$ (3) -8 (4) $\pm 5\sqrt{33}$

23 (1) $\frac{15}{2}$ (2) $-\frac{1}{2}$ 24 $x^2-2x-3=0$

25 $x^2+4x-1=0$ 26 $x^2-2x+10=0$

27 $(x-3-i)(x-3+i)$ 28 $(x+7i)(x-7i)$

F 이차방정식과 이차함수

01 꼭짓점의 좌표 : (1, 2), 축의 방정식 : $x=1$

02 꼭짓점의 좌표 : (2, 8), 축의 방정식 : $x=2$

03 (1) $a>0, b<0, c>0$ (2) $a<0, b<0, c<0$

(3) $a>0, b>0, c<0$ (4) $a<0, b>0, c>0$

04 $y=2(x+1)^2+3$ (또는 $y=2x^2+4x+5$)

05 $y=-x^2-x+2$ 06 $-1, 0$ 07 $-3, 9$

08 5 09 0 10 2 11 1

12 (1) $k>-3$ (2) $k=-3$ (3) $k<-3$

13 $k\geq -9$ 14 1, 4 15 -1 16 2 17 0

18 (1) $k<\frac{29}{4}$ (2) $k=\frac{29}{4}$ (3) $k>\frac{29}{4}$ 19 $k\leq \frac{3}{2}$

20 최댓값 : 없다, 최솟값 : -17

21 최댓값 : $\frac{1}{12}$, 최솟값 : 없다. 22 -6 23 $\frac{1}{2}$

24 최댓값 : 3, 최솟값 : -6

25 6 26 3 27 ② 28 ②, ④ 29 ① 30 ② 31 ⑤

32 ③ 33 ③ 34 ③ 35 ⑤ 36 ① 37 ③ 38 ①

39 ⑤ 40 ① 41 ④ 42 18 43 ⑤ 44 ④ 45 ①

46 ② 47 ③ 48 ② 49 13 50 4 51 ④ 52 12
 53 ② 54 ⑤ 55 ③ 56 ② 57 ⑤ 58 9 59 ③
 60 ① 61 ③ 62 11 63 13 64 3 65 ② 66 ①
 67 25 68 ③ 69 ④ 70 ① 71 ④ 72 ④ 73 ⑤
 74 ③ 75 ③ 76 ③ 77 ⑤ 78 12 79 384 80 4
 81 2 82 $\frac{3}{2}$ 83 -6 84 ④ 85 121 86 ⑤ 87 ②
 88 23 89 114 90 163 91 154 92 74 93 13

G 여러 가지 방정식

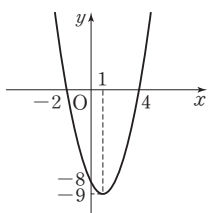
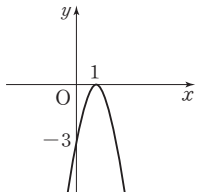
01 $x = -2$ 또는 $x = 1 \pm \sqrt{3}i$
 02 $x = -1$ 또는 $x = 0$ 또는 $x = 5$
 03 $x = -3$ 또는 $x = -2$ 또는 $x = 2$
 04 $x = 2$ 또는 $x = \frac{-1 \pm 3\sqrt{5}}{2}$
 05 $x = -1$ 또는 $x = 2$ 또는 $x = -1 \pm \sqrt{3}i$
 06 (1) $a = 5$ (2) $x = -6$ 또는 $x = 3$
 07 $x = \pm i$ 또는 $x = \pm 2i$
 08 $x = 1$ 또는 $x = -2$ 또는 $x = 3$ 또는 $x = -4$
 09 $x = -1 \pm \sqrt{2}i$ 또는 $x = 1 \pm \sqrt{2}i$
 10 $x = -2 \pm \sqrt{6}$ 또는 $x = 2 \pm \sqrt{6}$
 11 $x = -3 \pm 2\sqrt{2}$ 또는 $x = 1$
 12 $x = \frac{-1 \pm \sqrt{3}i}{2}$ 또는 $x = 2 \pm \sqrt{3}$
 13 (1) 5 (2) -2 (3) -4 (4) 29 (5) $\frac{1}{2}$ (6) 0
 14 $x^3 - 4x^2 - 39x - 54 = 0$ 15 $2x^3 - 18x^2 + 40x - 24 = 0$
 16 $a = 1, b = 1$ 17 $a = 1, b = 6$ 18 $a = 26, b = -20$
 19 (1) 0 (2) -1 (3) 1 (4) -1 (5) 0 (6) 1
 20 (1) 0 (2) 1 (3) 1 (4) 1 (5) 3 (6) 0
 21 $x = -3, y = 2$ 또는 $x = 2, y = -3$
 22 $x = -\sqrt{10}, y = -\frac{\sqrt{10}}{2}$ 또는 $x = \sqrt{10}, y = \frac{\sqrt{10}}{2}$
 23 $x = -1, y = -3$ 또는 $x = 3, y = 1$
 24 $x = 2\sqrt{2}, y = 2\sqrt{2}$ 또는 $x = -2\sqrt{2}, y = -2\sqrt{2}$
 또는 $x = 2\sqrt{5}, y = \sqrt{5}$ 또는 $x = -2\sqrt{5}, y = -\sqrt{5}$
 25 (3, 6), (6, 2)
 26 (0, 4), (6, -2), (-2, -10), (-8, -4)
 27 $x = -4, y = 2$ 28 3 29 ③ 30 ⑤ 31 ⑤ 32 ④
 33 ② 34 ③ 35 6 36 ① 37 3 38 ③ 39 ④
 40 ⑤ 41 ③ 42 ③ 43 10 44 ④ 45 ① 46 15
 47 ② 48 7 49 4 50 16 51 ① 52 12 53 ④
 54 3 55 ① 56 ⑤ 57 ① 58 ④ 59 ③ 60 ③
 61 ② 62 ② 63 65 64 2 65 ④ 66 10 67 5
 68 ④ 69 ② 70 ④ 71 ② 72 ② 73 ④ 74 ②
 75 ⑤ 76 18 77 ① 78 ① 79 25 80 ② 81 5
 82 ② 83 7 84 ⑤ 85 ① 86 ③ 87 6 cm, 8 cm

88 60 89 24 90 ② 91 ⑤ 92 ① 93 ③ 94 ①
 95 2 96 5 97 $x^3 - 2x^2 + 3x - 3 = 0$ 98 9 99 7
 100 5 101 164 102 90 103 $\frac{15}{2}$

H 부등식

01 $x > 3$ 02 $x \geq -\frac{5}{3}$
 03 (i) $a > -2$ 일 때, $x < \frac{a}{a+2}$ (ii) $a < -2$ 일 때, $x > \frac{a}{a+2}$
 (iii) $a = -2$ 일 때, 해가 없다.
 04 (i) $a > 1$ 일 때, $x \geq \frac{a+3}{a-1}$ (ii) $a < 1$ 일 때, $x \leq \frac{a+3}{a-1}$
 (iii) $a = 1$ 일 때, 해가 없다.
 05 $-4 \leq x < 0$ 06 $3 \leq x \leq 4$
 07 $-7 < x \leq -6$ 08 $2 \leq x \leq 6$
 09 해가 없다. 10 $x = 2$ 11 해가 없다.
 12 $a \geq 1$ 13 $a \leq 2$ 14 $x < -2$ 또는 $x > \frac{1}{2}$
 15 $x > \frac{7}{3}$ 16 $x \leq -3$ 또는 $x \geq 3$ 17 $-4 < x < 5$
 18 ④ 19 ② 20 ③ 21 ② 22 $x \leq \frac{2}{ab}$ 23 ①
 24 ④ 25 ① 26 ⑤ 27 21 28 9 29 ① 30 ⑤
 31 10 32 ⑤ 33 해가 없다. 34 ④ 35 ① 36 ②
 37 ③ 38 ② 39 21 40 ② 41 ④ 42 $\frac{9}{4}$ 43 ②
 44 ③ 45 ⑤ 46 9 47 ⑤ 48 28 49 ⑤ 50 ②
 51 ④ 52 15 53 ⑤ 54 ② 55 ③ 56 ② 57 ⑤
 58 ③ 59 ③ 60 ③ 61 ① 62 ⑤ 63 ③ 64 $k > 2$
 65 $\frac{11}{3} < k \leq 5$ 66 $-\frac{2}{3}$ 67 $-\frac{1}{3}$ 68 21 69 -1870 ⑤
 71 ④ 72 ⑤ 73 ①

I 이차부등식

01 (1) $x < -3$ 또는 $x > 1$ (2) $-3 < x < 1$
 (3) $x \leq -3$ 또는 $x \geq 1$ (4) $-3 \leq x \leq 1$
 02 (1)  (2) $x < -2$ 또는 $x > 4$
 (3) $-2 \leq x \leq 4$
 03 (1)  (2) 해가 없다.
 (3) $x = 1$ (4) $x \neq 1$ 인 모든 실수
 04 $x < -1$ 또는 $x > 5$ 05 $-1 \leq x \leq \frac{5}{4}$
 06 $-\frac{2}{3} < x < \frac{3}{2}$ 07 $1 \leq x \leq 3$ 08 모든 실수 09 $x = 1$
 10 $x^2 - 5x - 24 > 0$ 11 $x^2 - 5x + 4 \geq 0$

12 $-3x^2+9x+30<0$ 13 $-3x^2+9x+12\geq 0$
 14 $a>\frac{9}{4}$ 15 $0\leq a\leq 1$ 16 $a\geq 4$
 17 (1) $x\leq -\frac{1}{2}$ 또는 $x\geq \frac{3}{2}$ (2) $1<x<2$ (3) $\frac{3}{2}\leq x<2$
 18 $5<x<8$ 19 $5\leq x<8$ 20 해가 없다.
 21 $1\leq x<2$ 22 $1\leq x\leq 2$
 23 $x=-3$ 또는 $1\leq x\leq 3$ 24 $2<k\leq 18$ 25 $k>\frac{5}{2}$
 26 $-\frac{9}{2}<k\leq -2\sqrt{2}$ 27 $k\leq -\frac{5}{4}$ 28 $k<1$
 29 $1\leq k<\frac{5}{4}$ 30 ① 31 ⑤ 32 ④ 33 ① 34 ②
 35 ③ 36 ③ 37 ⑤ 38 ② 39 ③ 40 ③ 41 ①
 42 ① 43 ④ 44 ④ 45 22 46 10 47 ① 48 ②
 49 ① 50 ⑤ 51 ④ 52 ② 53 ② 54 -10 55 ⑤
 56 ④ 57 ⑤ 58 ⑤ 59 ⑤ 60 2 61 ③ 62 2
 63 ③ 64 ⑤ 65 ① 66 ④ 67 ① 68 ④ 69 34
 70 ① 71 ① 72 ④ 73 ③ 74 ③ 75 ① 76 ④
 77 21 78 ⑤ 79 ③ 80 ③ 81 ⑤ 82 11 83 ②
 84 21 85 10 86 2 87 15 88 7 89 ① 90 ②
 91 ② 92 $-2\leq a\leq \frac{4}{3}$ 93 29 94 ① 95 ② 96 ⑤
 97 ③ 98 ① 99 ④ 100 $2\leq k<\frac{11}{5}$ 101 ② 102 ③
 103 ② 104 $-1\leq x\leq \frac{3}{5}$ 105 $5<k\leq 6$
 106 200 km 초과 600 km 미만 107 $a\leq -2$ 또는 $a\geq 1$
 108 147 109 ⑤ 110 ④ 111 ②

J 경우의 수

01 6 02 5 03 10 04 9 05 6 06 4 07 12
 08 3 09 100 10 125 11 9 12 12 13 12 14 18
 15 24 16 44 17 34 18 ④ 19 ⑤ 20 ③ 21 ④
 22 ③ 23 20 24 ④ 25 ④ 26 ② 27 ① 28 ②
 29 ② 30 ③ 31 ⑤ 32 88 33 ④ 34 ③ 35 ⑤
 36 ④ 37 ① 38 ④ 39 ④ 40 ③ 41 ③ 42 ④
 43 ④ 44 ④ 45 ③ 46 ① 47 ⑤ 48 ① 49 ③
 50 ② 51 432 52 48 53 104 54 11 55 840 56 ③
 57 $c<a=b$ 58 ⑤ 59 60

K 순열과 조합

01 60 02 1 03 6 04 7 05 4 06 3 07 360
 08 60 09 240 10 1440 11 60 12 24 13 18 14 10
 15 10 16 6 17 16 18 15 19 1 20 6 21 3
 22 6 23 2 24 84 25 9 26 35 27 12 28 35
 29 35 30 20 31 80 32 840 33 240 34 90 35 28
 36 56 37 9 38 ③ 39 720 40 ⑤ 41 ③ 42 ⑤
 43 576 44 ② 45 ① 46 ③ 47 ① 48 ④ 49 ④
 50 ⑤ 51 ⑤ 52 720 53 ② 54 ④ 55 307 56 ①

57 ③ 58 ⑤ 59 28 60 ② 61 ③ 62 ② 63 ①
 64 ② 65 ① 66 ⑤ 67 ⑤ 68 ③ 69 190 70 ③
 71 ② 72 ① 73 ② 74 ① 75 90 76 ① 77 ④
 78 ⑤ 79 ② 80 ④ 81 ⑤ 82 ⑤ 83 ③ 84 ①
 85 ④ 86 ② 87 ④ 88 ③ 89 160 90 ⑤ 91 ②
 92 ③ 93 ② 94 200 95 ⑤ 96 256 97 ④ 98 516
 99 ① 100 ④ 101 ② 102 ② 103 ② 104 72 105 129
 106 160 107 96 108 20 109 $A<C<B$ 110 ③ 111 35
 112 16

L 행렬과 그 연산

01 2×1 행렬 02 1×3 행렬
 03 2×2 행렬, 2차정사각행렬 04 24 05 -5 06 7
 07 7 08 $\begin{pmatrix} 0 & -1 \\ -1 & 0 \end{pmatrix}$ 09 $x=10, y=0$
 10 $x=4, y=-1$ 11 $\begin{pmatrix} 2 & 0 \\ 7 & 9 \end{pmatrix}$ 12 $\begin{pmatrix} 0 & 0 \end{pmatrix}$
 13 $X=\begin{pmatrix} 2 & 8 \\ -6 & 2 \end{pmatrix}$ 14 $X=\begin{pmatrix} -8 & 0 \\ 8 & 11 \end{pmatrix}$
 15 $X=\begin{pmatrix} -6 & -6 \\ 5 & 0 \end{pmatrix}$ 16 $\begin{pmatrix} 15 & 30 \\ 12 & -21 \end{pmatrix}$
 17 $\begin{pmatrix} -38 & -36 \\ 4 & 10 \end{pmatrix}$ 18 $\begin{pmatrix} -31 \\ 16 \end{pmatrix}$ 19 $\begin{pmatrix} 46 & 34 \end{pmatrix}$
 20 $\begin{pmatrix} -13 \end{pmatrix}$ 21 $\begin{pmatrix} 32 & -27 \\ -48 & 72 \end{pmatrix}$
 22 $\begin{pmatrix} 0 & 84 \\ -12 & 104 \end{pmatrix}$ 23 $\begin{pmatrix} -23 & -93 \\ 48 & 72 \end{pmatrix}$
 24 $\begin{pmatrix} 9 & -204 \\ 12 & 40 \end{pmatrix}$ 25 $\begin{pmatrix} 13 & -21 \\ -84 & 328 \end{pmatrix}$
 26 $\begin{pmatrix} -51 & -135 \\ 36 & -24 \end{pmatrix}$ 27 $\begin{pmatrix} 5 & -51 \\ 60 & 168 \end{pmatrix}$
 28 $\neg, \sqsubset, \sqsupset$ 29 $\begin{pmatrix} -2 & -10 \\ 45 & -17 \end{pmatrix}$
 30 $\begin{pmatrix} -2 & -10 \\ 45 & -17 \end{pmatrix}$ 31 $\neq$ 32 BC 33 AC 34 $=, =$
 35 $\begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$ 36 $\begin{pmatrix} 5 & 0 \\ 0 & 5 \end{pmatrix}$ 37 $\begin{pmatrix} 2 & 0 \\ 0 & 2 \end{pmatrix}$ 38 11
 39 ④ 40 ① 41 ⑤ 42 50 43 14 44 ① 45 ④
 46 4 47 ④ 48 ④ 49 ① 50 ② 51 3 52 ②
 53 8 54 ① 55 16 56 ③ 57 ④ 58 ⑤ 59 ④
 60 ① 61 32 62 ④ 63 53 64 3 65 93 66 ③
 67 ① 68 ② 69 502 70 18 71 37 72 ① 73 ②
 74 102 75 ③ 76 ① 77 ② 78 ① 79 17 80 3
 81 ③ 82 ② 83 23 84 ② 85 13 86 ② 87 ②
 88 ⑤ 89 80 90 ④ 91 40 92 ③ 93 ① 94 ④
 95 ⑤ 96 128 97 ② 98 ④ 99 2 100 18 101 6
 102 56 103 3 104 ② 105 180 106 4