



A 평면좌표

- 01 5 02 9 03 10 04 $2\sqrt{13}$ 05 P(3) 06 2
 07 $P(\frac{3}{2}, \frac{19}{4})$ 08 5 09 G(4, 3) 10 G(1, 2)
 11 2 12 -40 13 ① 14 ③ 15 2 16 ② 17 29
 18 ② 19 ① 20 P(1, 0) 21 ② 22 ② 23 ④
 24 4 25 ④ 26 ⑤ 27 ⑤ 28 ② 29 ④ 30 ⑤
 31 ③ 32 ④ 33 해설 참조 34 ① 35 ③ 36 ③
 37 ④ 38 ④ 39 ① 40 160 41 ③ 42 ⑤ 43 ③
 44 ④ 45 ③ 46 ② 47 14 48 ③ 49 ② 50 ④
 51 ⑤ 52 ③ 53 ③ 54 ⑤ 55 7 56 ⑤ 57 14
 58 ② 59 $\frac{2\sqrt{2}}{3}$ 60 ③ 61 ③ 62 19 63 $(11, \frac{10}{3})$
 64 ④ 65 $D(\frac{7}{2}, -\frac{1}{2})$ 66 13 67 ③ 68 $\sqrt{74}$ 69 $\sqrt{34}$
 70 $\frac{14}{3}$ 71 $\frac{22}{5}$ 72 $\sqrt{5}$ 73 3 74 116 75 ③ 76 $6\sqrt{21}$
 77 ①

B 직선의 방정식

- 01 $y = -2x + 3$ 02 $y = 2x + 3$
 03 $y = -\frac{1}{2}x + 4$ 04 $y = 3x + 4$
 05 $y = -\frac{3}{2}x + 3$ 06 $x = 3$ 07 (-2, -6)
 08 (-1, 0) 09 $x + 4y = 0$
 10 $x - 9y + 10 = 0$ 11 □과 □
 12 ▽과 □, ▴과 □, ▽과 ▽ 13 (1) -1 (2) 2 (3) $\frac{1}{3}$
 14 0 15 1 16 9 17 7 18 $5\sqrt{2}$ 19 $\frac{\sqrt{2}}{10}$ 20 3
 21 $\sqrt{13}$ 22 $\frac{3\sqrt{2}}{4}$ 23 $\frac{3\sqrt{5}}{2}$ 24 ① 25 ① 26 ② 27 3
 28 ② 29 ⑤ 30 ④ 31 ④ 32 ③ 33 ④
 34 $y = \frac{3}{2}x + 3$ 35 ④ 36 ① 37 ① 38 ⑤ 39 ⑤
 40 ④ 41 ④ 42 ⑤ 43 ③ 44 ③ 45 4
 46 $-1 \leq m \leq \frac{1}{3}$ 47 ③ 48 ③ 49 ④ 50 ⑤ 51 ③
 52 ② 53 3 54 ⑤ 55 ⑤ 56 ② 57 ③ 58 ②
 59 15 60 ② 61 ③ 62 ① 63 125 64 ① 65 ①
 66 ④ 67 ③ 68 ④ 69 ⑤ 70 ② 71 $y = -\frac{1}{2}x - \frac{5}{3}$
 72 9 73 ④ 74 ⑤ 75 6 76 ③ 77 ① 78 $\sqrt{2}$
 79 ③ 80 ① 81 ⑤ 82 ④ 83 ④ 84 ② 85 ②

- 86 ④ 87 25 88 ④ 89 5 90 ⑤ 91 $\frac{72}{25}\pi$ 92 20
 93 ④ 94 ③ 95 $5x - 4y + 8 = 0$ 96 ①
 97 $3x - y + 5 = 0$ 98 $\frac{\sqrt{2}}{2}$ 99 -24 100 13 101 26 102 $4\sqrt{2}$
 103 ⑤ 104 ④ 105 30 106 ⑤

C 원의 방정식

- 01 중심의 좌표 : (0, -1), 반지름의 길이 : 2
 02 중심의 좌표 : (-6, -4), 반지름의 길이 : 3
 03 중심의 좌표 : (-1, 0), 반지름의 길이 : 2
 04 중심의 좌표 : (-3, -1), 반지름의 길이 : 5
 05 $(x+1)^2 + (y-6)^2 = 10$
 06 $(x+3)^2 + (y-2)^2 = 5$ 07 $x^2 + y^2 + 17x - y = 0$
 08 $(x-3)^2 + (y-2)^2 = 4$ 09 $(x+4)^2 + (y-3)^2 = 9$
 10 $(x-1)^2 + (y+1)^2 = 1$ 11 $x^2 + y^2 + 3x - 6y = 0$
 12 $6x - 5y - 14 = 0$
 13 (1) 2 (2) 1 (3) 0 14 서로 다른 두 점에서 만난다.
 15 만나지 않는다. 16 서로 다른 두 점에서 만난다.
 17 한 점에서 만난다. (접한다.)
 18 (1) $-10 < k < 10$ (2) $k = 10$ 또는 $k = -10$
 (3) $k < -10$ 또는 $k > 10$
 19 $y = 3x \pm \sqrt{10}$ 20 $3x - 4y = 50$
 21 (가) $3y_1 - 2$ (나) $\frac{1}{5}$ (다) $-\frac{7}{5}$ (라) $7x - y = -10$
 22 $\sqrt{22}$ 23 $3\sqrt{6}$ 24 25 25 ② 26 ④ 27 ③ 28 ⑤
 29 ② 30 ② 31 ⑤ 32 ⑤
 33 $(x-4)^2 + (y+2)^2 = 50$ 34 ② 35 ① 36 ③
 37 10 38 ⑤ 39 ① 40 ⑤ 41 ④ 42 ⑤ 43 ④
 44 $(x-6)^2 + (y+6)^2 = 36$ 45 1 46 ② 47 ③
 48 ① 49 ⑤ 50 ⑤ 51 $(x-3)^2 + (y-3)^2 = 1$ 52 ④
 53 ④ 54 256 55 ④ 56 ④ 57 ⑤ 58 ② 59 -9
 60 ① 61 ③ 62 ① 63 ⑤ 64 ① 65 ④ 66 ①
 67 ④ 68 ④ 69 ② 70 ⑤ 71 ③ 72 ① 73 5
 74 ② 75 ③ 76 8 77 ④ 78 ④ 79 ④ 80 ④
 81 ③ 82 24 83 ① 84 ② 85 $\frac{5}{9}$ 86 ② 87 ①
 88 ① 89 ④ 90 23 91 22 92 ③ 93 ① 94 20
 95 ⑤ 96 48 97 18 98 ⑤ 99 ⑤ 100 ④ 101 ⑤
 102 8 103 60 104 ④ 105 $y = \pm\sqrt{3}x + 4$ 106 7
 107 18 108 ③ 109 ⑤ 110 ② 111 $y = -2x + 4$ 112 ②
 113 ④ 114 6 115 3 116 -13 117 0 118 90
 119 해설 참조 120 ④ 121 ② 122 17 123 ②

D 도형의 이동

- 01 $(-2, 6)$ 02 $(-4, -1)$ 03 $(0, -4)$
 04 $(4, 0)$ 05 $a = -1, b = -3$
 06 $a = -3, b = -4$ 07 $3x - 5y - 10 = 0$
 08 $(x-4)^2 + (y+4)^2 = 4$ 09 $4x - 2y + 27 = 0$
 10 $y = -2x^2 - 9x + 3$ 11 $2x - 3y - 16 = 0$
 12 $x^2 + y^2 - 6x + 10y + 30 = 0$
 13 $a = 2, b = -10, c = 16$
 14 (1) $(-6, -5)$ (2) $(6, 5)$ (3) $(6, -5)$ (4) $(5, -6)$
 15 -4 16 $x + 2y + 6 = 0$ 17 $(x+3)^2 + (y+1)^2 = 9$
 18 $y = -3x^2 + 4x + 2$ 19 $x^2 + y^2 + 6x - 8y + 10 = 0$
 20 $2x + 3y + 12 = 0$ 21 $y = \frac{2}{3}x^2 - x - 4$
 22 $y = \frac{1}{4}x + \frac{3}{4}$ 23 $x^2 + y^2 - 4x + 9y = 20$
 24 $(7, 6)$ 25 $(-1, -4)$ 26 $\frac{5}{2}$
 27 $y = -x - 6$ 28 $(x+2)^2 + (y+8)^2 = 16$
 29 (가) 8 (나) $a + 2b$ (다) $\frac{21}{5}$ (라) $\frac{2}{5}$ 30 6 31 7
 32 ⑤ 33 ③ 34 ③ 35 ⑤ 36 ① 37 3 38 ④
 39 14 40 1 41 ① 42 ③ 43 ④ 44 ② 45 9
 46 ③ 47 150 48 $x = 4$ 49 ④ 50 $\frac{17}{4}$ 51 ① 52 ①
 53 ④ 54 ③ 55 32 56 ① 57 ③ 58 ⑤ 59 ⑤
 60 $y = 3x + 12$ 61 ⑤ 62 ③ 63 ① 64 ③ 65 5
 66 ② 67 ④ 68 24 69 ④ 70 ② 71 24 72 ③
 73 ③ 74 ① 75 ⑤ 76 ② 77 ② 78 ④ 79 ④
 80 $y = 2x + 9$ 81 ③ 82 ⑤
 83 $y = -\frac{3}{2}x^2 - 2x + 11$ 84 ⑤ 85 ⑤ 86 ② 87 ①
 88 ④ 89 12 90 ① 91 ④ 92 ③ 93 $(-2, 6)$
 94 -2 95 $4x + 3y - 3 = 0$ 96 $2\sqrt{29}$
 97 $P(3, 9)$ 또는 $P(-3, -9)$ 98 ⑤ 99 ④
 100 35 101 ①

E 집합의 뜻과 표현

- 01 $\times$ 02 $\circ$ 03 $A = \{1, 2, 4, 8, 16\}$ 04 $B = \{1, 17\}$
 05 $\in$ 06 $\notin$ 07 $\{9, 18, 27, 36, 45\}$
 08 $\{1, 2, 4, 5, 10, 20, 25, 50, 100\}$
 09 예 $A = \{x | x \text{는 양의 짝수}\}$
 10 예 $B = \{x | x \text{는 자연수 중 } 50 \text{보다 작은 소수}\}$
 11 $C = \{1, 3, 5, 7, 9\}$ 12 $D = \{-3, 0, 1\}$
 13 $\{5, 10, 15, 20, \dots\}$ 14 예 $\{x | x \text{는 양의 홀수}\}$ 15 무

- 16 유 17 1 18 4 19 $B \subset A$ 20 $A = B$
 21 $\emptyset$ 22 $\{x\}, \{y\}, \{z\}$ 23 $\emptyset, \{-1\}, \{1\}, \{-1, 1\}$
 24 $\emptyset, \{2\}, \{3\}, \{2, 3\}$ 25 $\sqsubset, \sqsupset$ 26 $A = B$
 27 $A \neq B$ 28 $\emptyset, \{1\}, \{3\}, \{5\}, \{15\}, \{1, 3\},$
 $\{1, 5\}, \{1, 15\}, \{3, 5\}, \{3, 15\},$
 $\{5, 15\}, \{1, 3, 5\}, \{1, 3, 15\},$
 $\{1, 5, 15\}, \{3, 5, 15\}$
 29 $\emptyset, \{-4\}, \{0\}$ 30 32 31 16 32 ② 33 ③
 34 ④ 35 ⑤ 36 ⑤ 37 ③ 38 ④ 39 ⑤
 40 ②, ⑤ 41 ③ 42 ③ 43 ② 44 ② 45 ①
 46 4 47 ⑤ 48 ④ 49 ⑤ 50 ② 51 ④ 52 ⑤
 53 48 54 ⑤ 55 ① 56 5 57 ① 58 5 59 ⑤
 60 ① 61 ⑤ 62 ⑤ 63 ⑤ 64 ② 65 ⑤ 66 ③
 67 ⑤ 68 ⑤ 69 ② 70 7 71 12 72 ⑤ 73 ④
 74 ② 75 ④ 76 ④ 77 ④ 78 8 79 ① 80 17
 81 10 82 3 83 $\{1, 2, 3, 4, 9, 12, 18, 36\}$ 84 10
 85 50

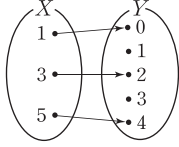
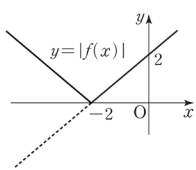
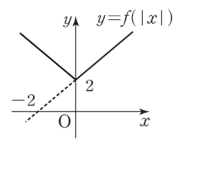
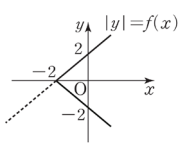
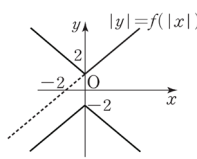
F 집합의 연산

- 01 $\{1, 4, 6\}$ 02 $\{1, 2, 3, 5, 10, 15\}$ 03 $\{3, 5\}$
 04 $\{x | x \text{는 } 16 \text{의 양의 배수}\}$ 05 $\{1, 4, 5\}$
 06 $\neg, \sqsubset$ 07 $\{3, 6\}$ 08 $\{1, 3, 4, 5\}$
 09 $\{1, 3, 5\}$ 10 $\{1, 2, 4, 6, 8, 10\}$
 11 $\{1, 3, 5, 7, 9\}$ 12 $\{1, 2, 4, 20\}$ 13 $\{b, d, e\}$
 14 U 15 A 16 A 17 $\emptyset$ 18 $\emptyset$ 19 $A \cap B$
 20 $A - B$ 21 $B - C$ 22 $\sqsubset, \sqsupset, \sqsubset$
 23 $\{c, e\}$ 24 (가) $A^c \cup B^c$ (나) 결함법칙 (다) U
 25 5 26 2 27 5 28 10 29 14 30 8 31 ⑤
 32 35 33 ③ 34 ② 35 ② 36 ④ 37 20 38 ③
 39 ⑤ 40 ③ 41 13 42 ③ 43 6 44 ① 45 ⑤
 46 ④ 47 ③ 48 ④ 49 ⑤ 50 ④ 51 ⑤ 52 ⑤
 53 ① 54 ③ 55 ③ 56 ⑤ 57 ③ 58 27 59 ②
 60 7 61 ③ 62 ⑤ 63 ③ 64 ③ 65 ② 66 22
 67 ② 68 8 69 32 70 8 71 ③ 72 34 73 ⑤
 74 ⑤ 75 ⑤ 76 22 77 ⑤ 78 ⑤ 79 ② 80 ③
 81 ② 82 ① 83 ③ 84 2 85 35 86 ② 87 ⑤
 88 ④ 89 17 90 ② 91 ⑤ 92 ④ 93 ⑤ 94 ④
 95 8 96 34 97 ④ 98 8 99 189 100 11 101 29
 102 ⑤ 103 ② 104 75 105 ② 106 ⑤ 107 ③ 108 ④
 109 ⑤ 110 ⑤ 111 85 112 ④ 113 10 114 12 115 33
 116 16 117 27 118 ③ 119 ⑤ 120 ⑤ 121 36 122 38

G 명제

- 01 × 02 × 03 {2, 3, 4, 5} 04 {2, 3, 4, 5, 6, 7}
 05 $\sqrt{2}$ 는 무리수가 아니다.
 06 삼각형의 세 내각의 크기의 합은 180° 가 아니다.
 07 a 는 음수이다. 08 $x < 3$ 또는 $x \geq 7$ 09 참 10 거짓
 11 어떤 실수 x 에 대하여 $|x| \leq 0$ 이다. (참)
 12 모든 실수 x 에 대하여 $x^2 > 25$ 이다. (거짓)
 13 역: 두 대각선의 길이가 서로 같은 사각형은 직사각형이다. (거짓)
 대우: 두 대각선의 길이가 같지 않은 사각형은 직사각형이 아니다. (참)
 14 역: $a=70$ 이고 $b=30$ 이면 $a+b=100$ 이다. (참)
 대우: $a \neq 7$ 또는 $b \neq 30$ 이면 $a+b \neq 100$ 이다. (거짓)
 15 (가) 유리수 (나) 짝수 (다) 서로소 16 충분
 17 필요충분 18 필요충분조건 19 필요조건
 20 $(2\sqrt{3}+1)^2 > 4\sqrt{3}+10$ 21 $x^2+12 > 6x$
 22 (가) $|ab|-ab$ (나) $\geq$ 23 2 24 4
 25 최댓값: 12 최솟값: -12 26 ② 27 ⑤ 28 ②
 29 ⑤ 30 ② 31 ④ 32 ③ 33 ③ 34 ④ 35 ②
 36 ⑤ 37 ③ 38 ③ 39 ② 40 ④ 41 ② 42 ③
 43 ③ 44 ② 45 ③ 46 26 47 ② 48 12 49 ①
 50 ② 51 ② 52 9 53 9 54 ③ 55 9 56 ③
 57 ② 58 7 59 ② 60 ① 61 ② 62 ② 63 ④
 64 ③ 65 ① 66 ③ 67 ② 68 ⑤ 69 ③ 70 ④
 71 ③ 72 ① 73 ③ 74 ⑤ 75 ⑤ 76 11 77 ⑤
 78 24 79 ② 80 ④ 81 ① 82 ③ 83 ③ 84 ⑤
 85 ① 86 ③ 87 ④ 88 ③ 89 ② 90 ② 91 ②
 92 ① 93 해설 참조 94 ③ 95 (가) $\frac{1}{2}b$ (나) $\frac{3}{4}$ (다) 0
 96 ④ 97 ③ 98 10 99 ⑤ 100 ④ 101 ⑤ 102 8
 103 ⑤ 104 32 105 ② 106 ⑤ 107 ④ 108 ① 109 ③
 110 ③ 111 3 112 ⑤ 113 ④ 114 ④ 115 $11+6\sqrt{2}$
 116 $\frac{1}{3}$ 117 2 118 25 119 A, C 120 12 121 ②
 122 ① 123 ②

H 함수

- 01  02 함수이다.
 정의역: $\{-2, -1, 0\}$
 공역: $\{0, 1, 2\}$ 치역: $\{1, 2\}$
 03 함수가 아니다.
 04 × 05 ○ 06 $\perp, \sqsubset$ 07 $\perp, \sqsubset$ 08 $\perp$
 09 $\neg$ 10 27 11 6 12 3 13 3 14 c
 15 $(g \circ f)(x) = 4x^2 + 12x + 10$
 16 $(f \circ g)(x) = 2x^2 + 5$ 17 $(f \circ f)(x) = 4x + 9$
 18 $(g \circ g)(x) = x^4 + 2x^2 + 2$ 19 -2 20 $\neg, \supset$ 21 1
 22 3 23 2 24 0 25 $y = \frac{1}{3}x + 2$ 26 $y = -2x + 2$
 27 b 28 b
 29 (1) $f(x) = x - 1$ (2) $f(x) = -x - 3$
 (3) 해설 참조, 치역: $\{y | y \geq -2\}$
 30 (1)  (2) 
 (3)  (4) 
 31 ③ 32 ④ 33 ⑤ 34 ⑤ 35 ③ 36 ④ 37 10
 38 ④ 39 ④ 40 ① 41 ② 42 ⑤ 43 ③ 44 ①
 45 ④ 46 ② 47 ② 48 ③ 49 7 50 ④ 51 ③
 52 ① 53 26 54 ② 55 ④ 56 ⑤ 57 ② 58 ③
 59 $\frac{9}{7}$ 60 ⑤ 61 ④ 62 ⑤ 63 ③ 64 ⑤ 65 ⑤
 66 6 67 ② 68 ④ 69 ④ 70 ⑤ 71 ④ 72 ⑤
 73 96 74 ③ 75 60 76 ⑤ 77 145 78 ⑤ 79 ②
 80 ② 81 ② 82 ① 83 ⑤ 84 ③ 85 ① 86 ④
 87 ① 88 ① 89 ③ 90 ① 91 ③ 92 ① 93 ⑤
 94 40 95 ⑤ 96 ① 97 ④ 98 ⑤ 99 3 100 ③
 101 ② 102 ② 103 ③ 104 ① 105 ⑤ 106 ① 107 ④
 108 $-6 < a < 6$ 109 ② 110 ④ 111 ⑤ 112 ⑤ 113 ④
 114 ④ 115 ③ 16 490 117 ② 118 5 119 ③ 120 ④
 121 ⑤ 122 18 123 13 124 23 125 ④ 126 ④ 127 ②
 128 ③ 129 ③ 130 ⑤ 131 180 132 ③ 133 ② 134 ①
 135 ⑤ 136 ③ 137 33 138 ① 139 ③ 140 ④ 141 ⑤
 142 ② 143 ② 144 $\frac{49}{4}$ 145 5 146 해설 참조 147 4
 148 1 149 ① 150 ⑤ 151 6 152 510

I 유리식과 유리함수

01 다항식: $\angle, \sqsubset, \sqsupset, \circ$ / 다항식이 아닌 유리식: $\neg, \llcorner, \lrcorner, \ulcorner, \urcorner$

02 $\frac{2x^3y}{3z^4}$ 03 $\frac{x(x-2)}{x+1}$ 04 $\frac{2x}{x^3y^3}, \frac{3y}{x^3y^3}$

05 $\frac{x^2-4x+3}{x^2-x-6}, \frac{x^2+2x}{x^2-x-6}$ 06 $\frac{x^2-6}{x^2-3x}$

07 $-\frac{3(x+2)}{x}$ 08 $\frac{1}{(x+2)^2}$ 09 $\frac{x+1}{x+2}$

10 $1+\frac{3}{x-2}$ 11 $2+\frac{1}{x+2}$ 12 $x+4$ 13 $2x+1$

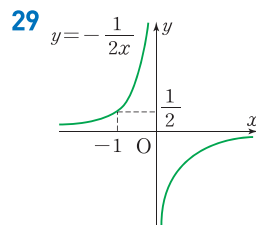
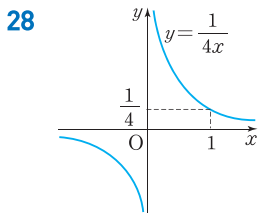
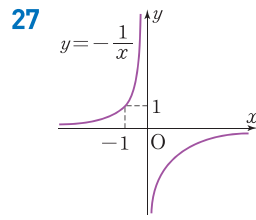
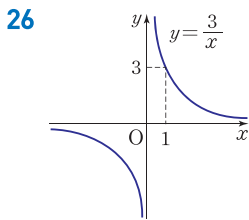
14 $\frac{2}{x(x+2)}$ 15 $-\frac{1}{x(x-1)}$ 16 $\frac{x}{x+1}$ 17 $\frac{x^2+1}{x-1}$

18 3 19 $\frac{24}{7}$ 20 2

21 다항함수: $\angle, \sqsubset, \sqsupset$ / 다항함수가 아닌 유리함수: $\neg, \llcorner, \lrcorner$

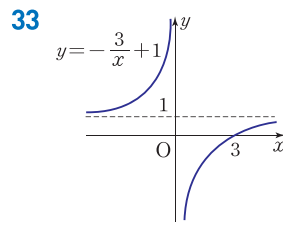
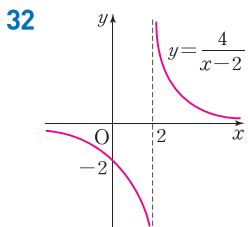
22 $\{x|x \text{는 실수}\}$ 23 $\{x|x \neq \frac{1}{4} \text{인 실수}\}$ 24 $\{x|x \text{는 실수}\}$

25 $\{x|x \neq -\frac{3}{5} \text{인 실수}\}$



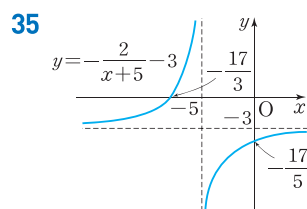
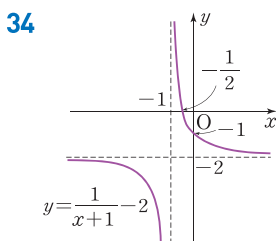
30 $y = \frac{1}{x-1} + 2$

31 $y = -\frac{2}{x+3} - 1$



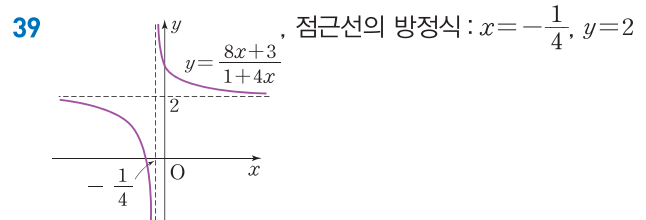
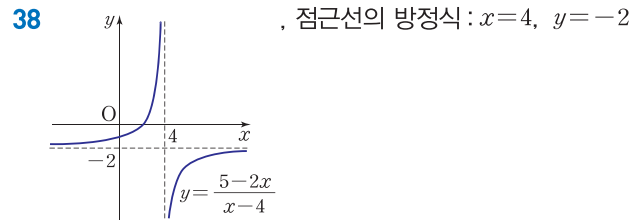
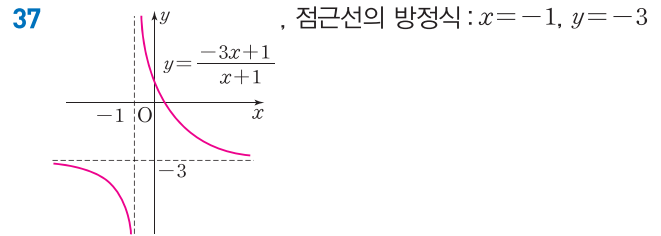
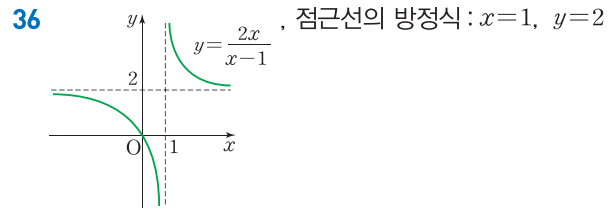
정의역: $\{x|x \neq 2 \text{인 실수}\}$
치역: $\{y|y \neq 0 \text{인 실수}\}$

정의역: $\{x|x \neq 0 \text{인 실수}\}$
치역: $\{y|y \neq 1 \text{인 실수}\}$



정의역: $\{x|x \neq -1 \text{인 실수}\}$
치역: $\{y|y \neq -2 \text{인 실수}\}$

정의역: $\{x|x \neq -5 \text{인 실수}\}$
치역: $\{y|y \neq -3 \text{인 실수}\}$



40 ④ 41 ③ 42 ④ 43 ③ 44 ④ 45 ④ 46 ①

47 ③ 48 ⑤ 49 ④ 50 ④ 51 ⑤ 52 ③ 53 $\frac{25}{102}$

54 ④ 55 ④ 56 ① 57 ④ 58 ② 59 4 60 ②

61 ③ 62 ③ 63 ① 64 ① 65 ② 66 ① 67 ③

68 ⑤ 69 ③ 70 ③ 71 ⑤ 72 55 73 ④ 74 ④

75 ② 76 ③ 77 ① 78 ④ 79 ⑤ 80 ⑤ 81 ②

82 ② 83 ② 84 ① 85 ④ 86 ② 87 ② 88 ⑤

89 ③ 90 ⑤ 91 제3사분면 92 제1, 3, 4사분면

93 5 94 $k > 3$ 95 ① 96 ③ 97 ④ 98 ⑤ 99 ④

100 ④ 101 ① 102 ③ 103 ① 104 ⑤ 105 ④ 106 ②

107 ① 108 ⑤ 109 ② 110 ①

111 최댓값: $\frac{15}{8}$, 최솟값: $\frac{3}{2}$ 112 ⑤ 113 $\frac{4}{3}$ 114 ①

115 ② 116 ⑤ 117 ② 118 ① 119 ⑤ 120 11 121 9

122 ① 123 ① 124 ⑤ 125 ③ 126 ④ 127 ③ 128 ③

129 26.5 130 4 131 $< 1, 2, 3, 4 >$ 132 $m > 0$

133 36 134 ① 135 ② 136 ④ 137 250

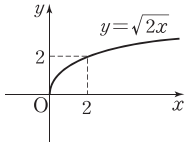
J 무리식과 무리함수

01 $6\sqrt{5}$ 02 $24+\sqrt{6}$ 03 $-a$ 04 1 05 $\perp, \sqsubset$

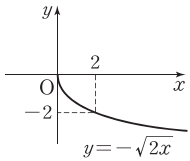
06 $-2-2\sqrt{2}$ 07 $2x+1+2\sqrt{x^2+x}$ 08 $x=4, y=-1$

09 $x=-3, y=2$

10 , 정의역: $\{x|x \geq 0\}$, 치역: $\{y|y \geq 0\}$



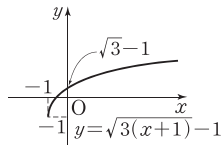
11 , 정의역: $\{x|x \geq 0\}$, 치역: $\{y|y \leq 0\}$



12 $y=\sqrt{6x}$ 13 $y=-\sqrt{-6x}$ 14 $y=\sqrt{-6x}$

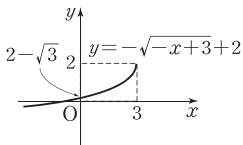
15 , 정의역: $\{x|x \geq -1\}$,

치역: $\{y|y \geq -1\}$



16 , 정의역: $\{x|x \leq 3\}$,

치역: $\{y|y \leq 2\}$



17 $y=\sqrt{-5x+5}-3$ 18 $y=\sqrt{-5x-1}+6$ 19 ②

20 ① 21 10 22 ② 23 ② 24 ⑤ 25 6 26 ①

27 ② 28 ④ 29 ② 30 ⑤ 31 ④ 32 11 33 ②

34 ① 35 ② 36 ⑤ 37 ④ 38 ③ 39 ④ 40 12

41 ③ 42 ③ 43 $\{x|x \leq -3\}$ 44 ① 45 ① 46 ④

47 ② 48 ⑤ 49 ② 50 ④ 51 ④ 52 11 53 ③

54 ④ 55 ⑤ 56 ④ 57 11 58 3 59 ④ 60 ④

61 ① 62 ④ 63 ③ 64 ① 65 ⑤ 66 27 67 ①

68 12 69 ② 70 ② 71 ③ 72 ③ 73 ① 74 3

75 ① 76 ② 77 ⑤ 78 ④ 79 ① 80 ② 81 ①

82 ③ 83 48 84 7 85 $-2b+3$ 86 36

87 $3+2\sqrt{2}$ 88 -2 89 $-\frac{1}{3} \leq m \leq \frac{2}{3}$ 90 ③

91 36 92 68