

정보통신 수학 및 실습 3월 3주차 Homework

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제 1 절 Chapter 1 Homework

1.1 Simplify the following terms.

(a)
$$(\sqrt{x})^4 = x^2$$

(b) $\frac{x^{-1}y}{xy^2} = \frac{1}{x^2y}$

1.2 Factorize the following polynomials.

(a)
$$2x^3 + x^2 - 2x - 1 = (x+1)(2x+1)(x-1)$$

(b) $x^4 - 1 = (x^2+1)(x+1)(x-1)$

1.3 Find the value of y.

(a)
$$y = 2x^2 + 3x + 2, x = -3$$

 $\implies y = 11$

1.4 There are rabbits and chickens in a nest. Total number of legs are 18 and that of heads are 5. How many rabbits and chickens are there in the nest?

$$4x + 2y = 18$$
$$x + y = 5$$
$$\therefore x = 4, y = 1$$