

展開と因数分解 [素因数分解]

<演習問題>

次の数を素因数分解せよ。

(1) 35

(10) 22

(2) 28

(11) 32

(3) 40

(12) 42

(4) 50

(13) 52

(5) 60

(14) 72

(6) 70

(15) 169

(7) 80

(16) 225

(8) 90

(17) 144

(9) 12

(18) 121

展開と因数分解 [素因数分解]

<演習問題>

次の数を素因数分解せよ。

(1) 35

$$35 = 5 \times 7$$

(2) 28

$$\begin{aligned} 28 &= 2 \times 2 \times 7 \\ &= 2^2 \times 7 \end{aligned}$$

(3) 40

$$\begin{aligned} 40 &= 2 \times 2 \times 2 \times 5 \\ &= 2^3 \times 5 \end{aligned}$$

(4) 50

$$\begin{aligned} 50 &= 2 \times 5 \times 5 \\ &= 2 \times 5^2 \end{aligned}$$

(5) 60

$$\begin{aligned} 60 &= 2 \times 2 \times 3 \times 5 \\ &= 2^2 \times 3 \times 5 \end{aligned}$$

(6) 70

$$70 = 2 \times 5 \times 7$$

(7) 80

$$\begin{aligned} 80 &= 2 \times 2 \times 2 \times 2 \times 5 \\ &= 2^4 \times 5 \end{aligned}$$

(8) 90

$$\begin{aligned} 90 &= 2 \times 3 \times 3 \times 5 \\ &= 2 \times 3^2 \times 5 \end{aligned}$$

(9) 12

$$\begin{aligned} 12 &= 2 \times 2 \times 3 \\ &= 2^2 \times 3 \end{aligned}$$

(10) 22

$$22 = 2 \times 11$$

(11) 32

$$\begin{aligned} 32 &= 2 \times 2 \times 2 \times 2 \times 2 \\ &= 2^5 \end{aligned}$$

(12) 42

$$42 = 2 \times 3 \times 7$$

(13) 52

$$\begin{aligned} 52 &= 2 \times 2 \times 13 \\ &= 2^2 \times 13 \end{aligned}$$

(14) 72

$$\begin{aligned} 72 &= 2 \times 2 \times 2 \times 3 \times 3 \\ &= 2^3 \times 3^2 \end{aligned}$$

(15) 169

$$\begin{aligned} 169 &= 13 \times 13 \\ &= 13^2 \end{aligned}$$

(16) 225

$$\begin{aligned} 225 &= 3 \times 3 \times 5 \times 5 \\ &= 3^2 \times 5^2 \end{aligned}$$

(17) 144

$$\begin{aligned} 144 &= 2 \times 2 \times 2 \times 2 \times 3 \times 3 \\ &= 2^4 \times 3^2 \end{aligned}$$

(18) 121

$$\begin{aligned} 121 &= 11 \times 11 \\ &= 11^2 \end{aligned}$$