

ಸರ್ಕಾರಿ ಪ್ರೌಢಶಾಲೆ, ರಾಯಲ್ಪಾಡು

ನಿತ್ಯಸಮೀಕರಣಗಳು(Algebraic Identities)

ಎಡಭಾಗದಲ್ಲಿನ ಮಾದರಿಯಂತೆ, ಬಲಭಾಗದಲ್ಲಿ ಸರಿಯಾದ ಉತ್ತರ ತುಂಬಿ

(As given in the model left, fill in the correct answer in right)

$$(a + b)^2 = a^2 + b^2 + 2ab$$

$$\begin{aligned}(13)^2 &= (10+3)^2 = (10)^2 + 3^2 + 2(10)(3) \\ &= 100 + 9 + 60 \\ &= 169\end{aligned}$$

$$(23)^2$$

$$\begin{aligned}&= (\square + \square)^2 = (\square)^2 + \square^2 + 2(\square)(\square) \\ &= \square + \square + \square \\ &= \square\end{aligned}$$

$$(a - b)^2 = a^2 + b^2 - 2ab$$

$$\begin{aligned}(27)^2 &= (30-3)^2 = (30)^2 + 3^2 - 2(30)(3) \\ &= 900 + 9 - 180 \\ &= 729\end{aligned}$$

$$(17)^2$$

$$\begin{aligned}&= (\square - \square)^2 = (\square)^2 + \square^2 - 2(\square)(\square) \\ &= \square + \square - \square \\ &= \square\end{aligned}$$

$$a^2 - b^2 = (a+b)(a-b)$$

$$\begin{aligned}9^2 - 7^2 &= (9+7)(9-7) \\ &= (63)(2) \\ &= 126\end{aligned}$$

$$13^2 - 12^2$$

$$\begin{aligned}&= \square^2 - \square^2 = (\square + \square)(\square - \square) \\ &= (\square)(\square) \\ &= \square\end{aligned}$$

$$(x+a)(x+b) = x^2 + (a+b)x + ab$$

$$\begin{aligned}22 \times 23 &= (20+2)(20+3) = (20)^2 + (2+3)20 + (2)(3) \\ &= 400 + (5)20 + 6 \\ &= 400 + 100 + 6 \\ &= 506\end{aligned}$$

$$33 \times 32 = (30+3)(30+2)$$

$$\begin{aligned}&= (\square)^2 + (\square + \square)\square + (\square)(\square) \\ &= \square + (\square)\square + \square \\ &= \square + \square + \square \\ &= \square\end{aligned}$$

