

Nafn: Lausn

prófa að deila frumtölur
2, 3, 5, 7, 11, 13, 17, 19, 23

1. Frumpáttaðu tölurnar:

$$a) 285 = \frac{285}{3} = \frac{95}{5} = 19$$

$$b) 24206 = \frac{24206}{2} = \frac{12103}{7} = \frac{1729}{7}$$

$$\underline{\underline{285 = 3 \cdot 5 \cdot 19}}$$

$$= \frac{247}{13} = 19$$

$$\underline{\underline{24206 = 2 \cdot 7^2 \cdot 13 \cdot 19}}$$

2. Finndu minnsta samfeldi (samnefnara) talnanna:

42, 130 og 150

$$42 = 2 \cdot 3 \cdot 7$$

$$\text{samnefnari } 2 \cdot 3 \cdot 5 \cdot 5 \cdot 7 \cdot 13$$

$$130 = 2 \cdot 5 \cdot 13$$

$$= \underline{\underline{13650}}$$

$$150 = 2 \cdot 3 \cdot 5 \cdot 5$$

Páttaðu í dæmi 3 – 10.

$$3. 5x - 15b = 5 \cdot x - 3 \cdot 5 \cdot b \\ = \underline{\underline{5(x - 3b)}}$$

$$4. yx^2 - 4xy + 8zx = \underline{\underline{x(yx - 4y + 8z)}}$$

$$5. 4x^2 - y^2 = \underline{\underline{(2x + y)(2x - y)}}$$

$$6. 4x^2 - 1 = \underline{\underline{(2x + 1)(2x - 1)}}$$

$$7. \quad a^2 - 2ab + b^2 = \underline{\underline{(a-b)(a-b)}}$$

$$8. \quad x^2 - 16a^2 = \underline{\underline{(x+4a)(x-4a)}}$$

$$9. \quad 25x^2 - 20xy + 4y^2 = \underline{\underline{(5x-2y)(5x-2y)}}$$

$$10. \quad 2x^2 - 5x - 3 = \underline{\underline{(2x+1)(x-3)}}$$