Factorisation: common factors and square patterns

Year 8, upper volume • text pp. 73–78 • foundation lessons 37–39 • 1/2

Name: _____ Class: _____ Date: _____

Worked example 1

Factorise completely over the integers. Verify by expansion.

$$2x^3 - 18x$$

Guided attempt 2

Factorise completely over the integers. Verify by expansion.

$$x^2 - 6x + 9$$

1. 9=___²; −6x=−2 • x • ___.
2. Therefore the product is (___−___)².

Prerequisite 3

Factorise completely over the integers. Verify by expansion.

$$6x^2 + 9x$$

Prerequisite 4

Factorise completely over the integers. Verify by expansion.

$$x^2 - 16$$

Factorisation: common factors and square patterns

Year 8, upper volume • text pp. 73–78 • foundation lessons 37–39 • 2/2

Name: _____ Class: _____ Date: _____

Independent practice 5

Factorise completely over the integers. Verify by expansion.

$$8x^2 - 12x$$

Independent practice 6

Factorise completely over the integers. Verify by expansion.

$$9x^2 - 25$$

Independent practice 7

Factorise completely over the integers. Verify by expansion.

$$x^2 + 10x + 25$$

Independent practice 8

Factorise completely over the integers. Verify by expansion.

$$3x^2 - 12$$

Exit question 9

Factorise completely over the integers. Verify by expansion.

$$x^2 - 4x + 4$$

Exit question 10

Factorise completely over the integers. Verify by expansion.

$$2x^2 + 6x$$