# FACTORIZATION OF ALGEBRAIC EXPRESSIONS

## A COMMON FACTOR LAWS

### A.1 FACTORIZING THE COMMON FACTOR: LEVEL 1

**Ex 1:** Factorize:

$$3x + 15 = \square$$

**Ex 2:** Factorize:

$$4x + 2 = \square$$

**Ex 3:** Factorize:

$$6x + 9 = \square$$

**Ex 4:** Factorize:

$$2x - 4 = \square$$

**Ex 5:** Factorize:

$$3 - 6x = \square$$

### A.2 FACTORIZING THE COMMON FACTOR: LEVEL 2

**Ex 6:** Factorize:

$$2x^2 + 4 = \square$$

**Ex 7:** Factorize:

$$x^2 + 6x = \square$$

**Ex 8:** Factorize:

$$x^2 - 2x = \square$$

**Ex 9:** Factorize:

$$2x^2 - 2x = \square$$

## B DIFFERENCE OF SQUARES

### B.1 FACTORIZING THE DIFFERENCE OF SQUARES: LEVEL 1

**Ex 10:** Factorize:

$$x^2 - 1 = \square$$

**Ex 11:** Factorize:

$$x^2 - 4 = \square$$

**Ex 12:** Factorize:

$$x^2 - 9 = \square$$

**Ex 13:** Factorize:

$$25 - x^2 = \square$$

### B.2 FACTORIZING THE DIFFERENCE OF SQUARES: LEVEL 2

**Ex 14:** Factorize:

$$x^2 - 3 = \square$$

**Ex 15:** Factorize:

$$x^2 - 2 = \square$$

**Ex 16:** Factorize:

$$5 - x^2 = \square$$

**Ex 17:** Factorize:

$$7 - x^2 = \square$$

## C PERFECT SQUARE TRINOMIALS

### C.1 FACTORIZING PERFECT SQUARE TRINOMIALS

**Ex 18:** Factorize:

$$x^2 + 2x + 1 = \square$$

**Ex 19:** Factorize:

$$x^2 + 4x + 4 = \square$$

**Ex 20:** Factorize:

$$x^2 + 6x + 9 = \square$$

**Ex 21:** Factorize:

$$x^2 + 10x + 25 = \square$$