

## Bab 2 Chapter 2

### Pemfaktoran dan Pecahan Algebra *Factorization and Algebraic Fraction*

1. Faktorkan ungkapan di bawah  
*Factorise the expression below*

|     |              |     |                 |
|-----|--------------|-----|-----------------|
| (a) | $3x + 15$    | (b) | $7m + 21m^2$    |
| (c) | $8k - 20k^2$ | (d) | $4p^2 + 2p - 6$ |



Menggunakan beza antara dua sebutan kuasa dua sempurna  
*Different of two square  $a^2 - b^2$*

2. Faktorkan ungkapan di bawah  
*Factorise the expression below*

|     |             |     |              |     |                  |
|-----|-------------|-----|--------------|-----|------------------|
| (a) | $x^2 - 9$   | (b) | $9y^2 - 100$ | (c) | $36m^2 - 121h^2$ |
| (d) | $3 - 12k^2$ | (e) | $5k^2 - 80$  | (f) | $2y^2 - 32$      |



## Menggunakan pendaraban silang Using Cross Multiplication

3. Faktorkan ungkapan di bawah  
*Factorise the expression below*

$$x^2 + 3x + 2$$

$$k^2 + 7k + 12$$

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

$$m^2 - 2m - 8$$

$$t^2 + 4t - 21$$

$$4x^2 + 13x - 12$$

$$-2y^2 - 9y + 5$$

$$3x^2 - 8x + 5$$



## Ungkapan Algebra dan Hukum Operasi Asas Aritmetik

### *Algebraic Expressions and Laws of Basic Arithmetic Operation*

#### 4. Permudahkan *Simplify*

(a)  $\frac{4p}{5} \times \frac{15q}{16}$

(b)  $\frac{2x}{7} \div \frac{4y}{14}$

(c)  $\frac{x-3}{15} \times \frac{5}{2x-6}$

(d)  $\frac{x+4}{x-3} \times \frac{3x-9}{5x+20}$

(e)  $\frac{2x}{3y-6} \div \frac{4}{y-2}$

(f)  $\frac{(h+k)^2}{2k-h} \times \frac{6k-3h}{h^2-k^2}$



## Ungkapan Algebra dan Hukum Operasi Asas Aritmetik

### *Algebraic Expressions and Laws of Basic Arithmetic Operation*

#### 5. Permudahkan *Simplify*

(a)  $\frac{2}{5b}(15a + 25b) + \frac{a}{b}$

(b)  $\frac{9k^2 - 12k + 4}{(3k + 2)(3k - 2)}$

(c)  $\frac{12m - 18m^2}{4n^2 - 16n} \times \frac{n}{m}$

(d)  $\frac{a - b}{3a + b} \div \frac{(a - b)^2}{6a + 2b}$

(d)  $\frac{x + 43}{x - 3} \times \frac{-3x + 9}{5x + 20}$

(e)  $\frac{x^2 - 4}{x^2 + 4x - 32} \div \frac{x^2 - 5x + 6}{5x + 40}$