The image shows the cover of a spiral-bound notebook. The cover is a light beige or tan color with a fine, woven fabric texture. On the left side, there is a silver metal spiral binding. The text is centered on the cover in a large, bold, black, sans-serif font.

PARTS OF ADDITION AND SUBTRACTION SENTENCES

PARTS OF ADDITION SENTENCE

27 ADDEND

+32 ADDEND

59 SUM

$$27 + 32 = 59$$

ADDEND + ADDEND = SUM

PARTS OF SUBTRACTION SENTENCE

67 MINUEND

-42 SUBTRAHEND

25 DIFFERENCE

$$67 - 42 = 25$$

MINUEND - SUBTRAHEND =
DIFFERENCE

ADDITION NUMBER PROPERTIES

ADDITION NUMBER PROPERTIES

- **PROPERTY OF ZERO-**
Zero plus any number
equals that number.

Examples:

$$5 + 0 = 5$$

$$0 + 12 = 12$$

$$27 + 0 = 27$$

ADDITION NUMBER PROPERTIES

- COMMUTATIVE
PROPERTY - Changing the **order** of the addends does *not* change the sum.

Examples:

$$5 + 3 = 8$$

$$3 + 5 = 8$$

$$7 + 9 = 16$$

$$9 + 7 = 16$$

$$21 + 10 = 31$$

$$10 + 21 = 31$$

ADDITION NUMBER PROPERTIES

- ASSOCIATIVE
PROPERTY- Changing the **grouping** of the addends does *not* change the sum.

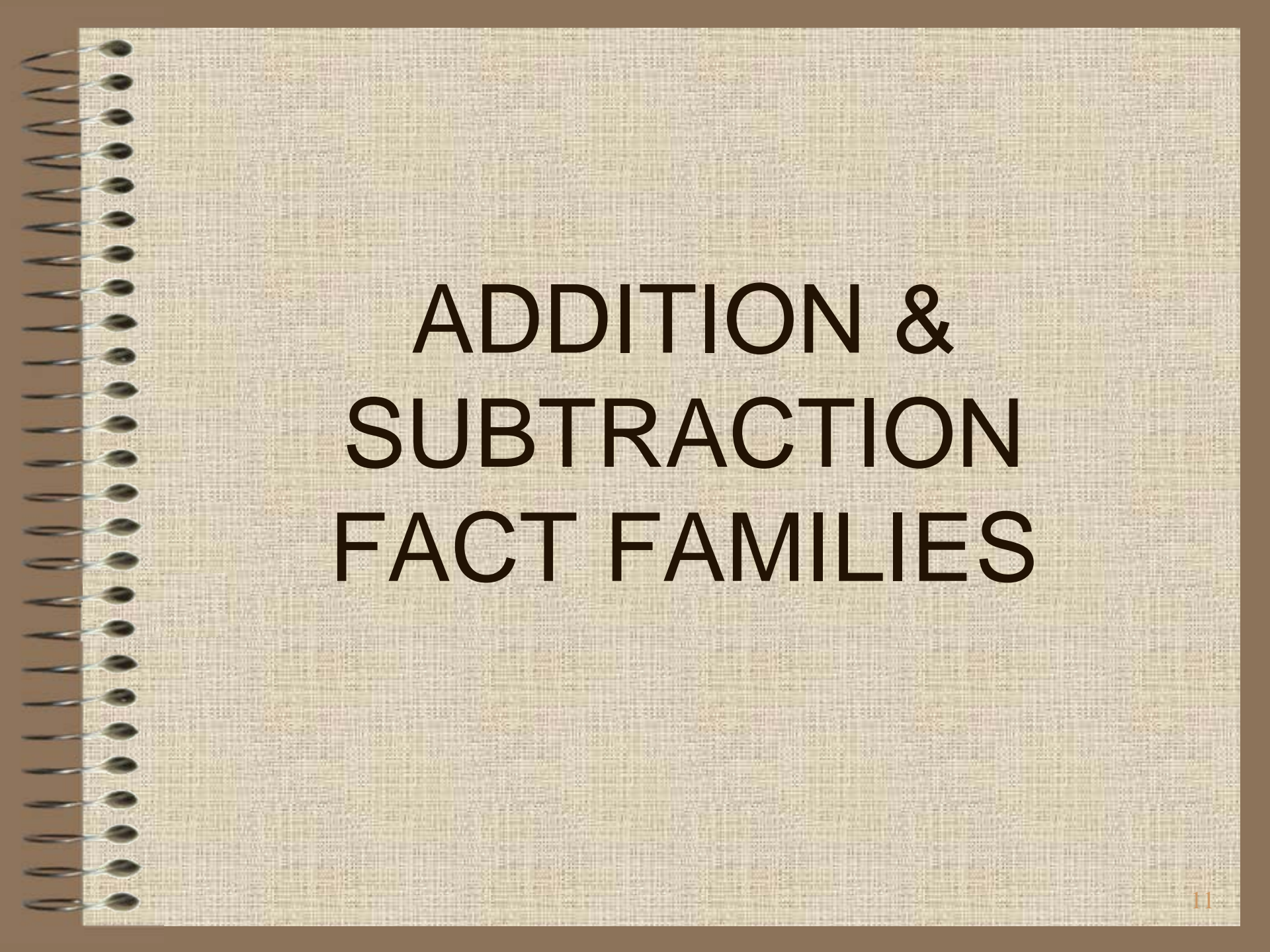
Examples:

$$(5 + 3) + 2 = 10$$

$$5 + (3 + 2) = 10$$

$$(6 + 4) + 7 = 17$$

$$6 + (4 + 7) = 17$$

A spiral-bound notebook with a light-colored, textured cover. The spiral binding is on the left side. The text is centered on the cover.

ADDITION & SUBTRACTION FACT FAMILIES

Addition And Subtraction Fact Families

$$5 + 4 = 9$$

$$9 - 5 = 4$$

$$4 + 5 = 9$$

$$9 - 4 = 5$$

$$3 + 0 = 3$$

$$3 - 0 = 3$$

$$0 + 3 = 3$$

$$3 - 3 = 0$$

Addition And Subtraction Fact Families

$$3 + 7 = 10$$

$$10 - 7 = 3$$

$$7 + 3 = 10$$

$$10 - 3 = 7$$

$$2 + 2 = 4$$

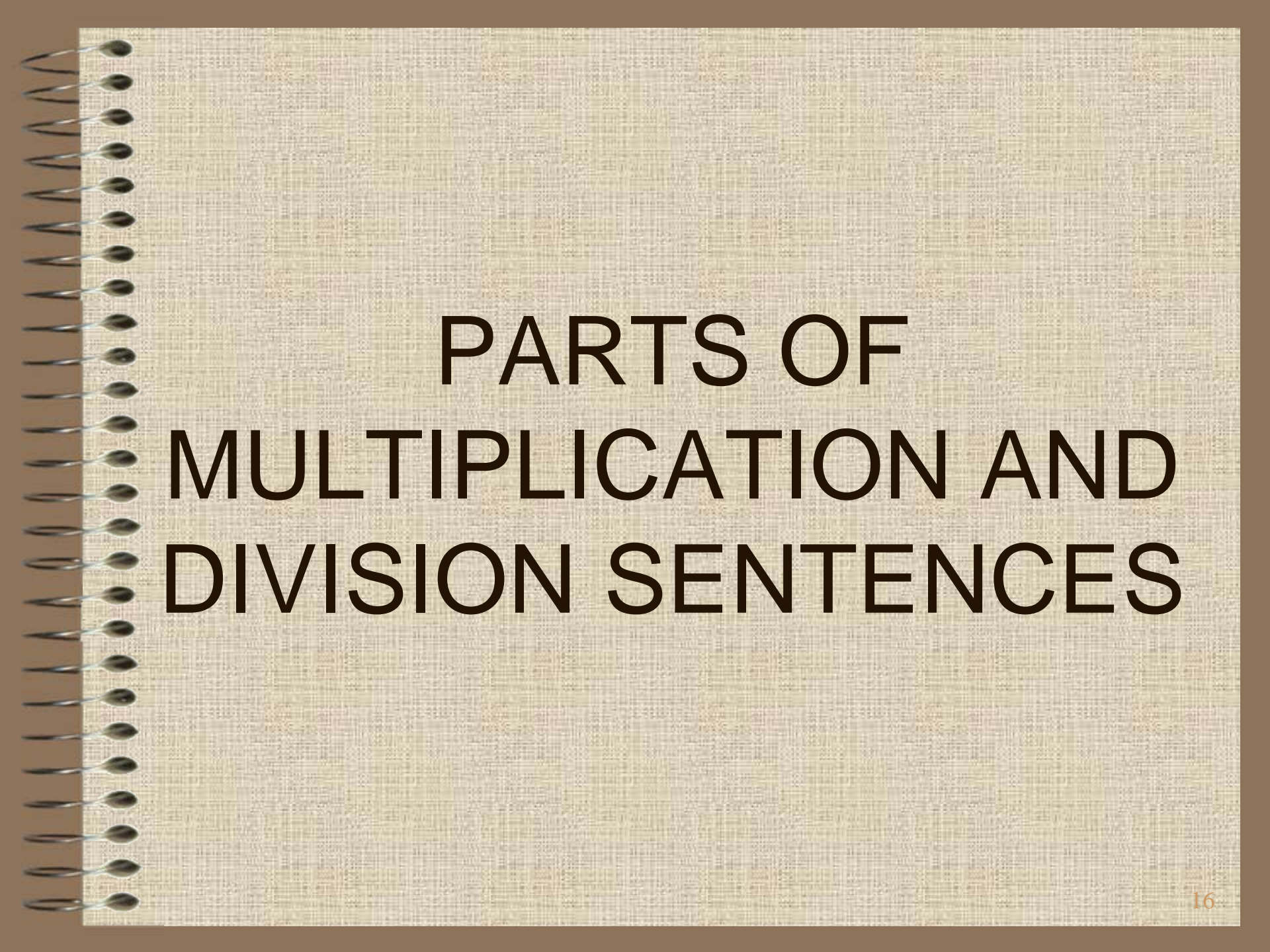
$$4 - 2 = 2$$

Addition and subtraction
are inverse operations.

Inverse means opposite.



A series of horizontal lines for writing, consisting of 18 evenly spaced lines across the page.

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PARTS OF MULTIPLICATION AND DIVISION SENTENCES

PARTS OF MULTIPLICATION SENTENCE

3 FACTOR

x6 FACTOR

18 PRODUCT

$$3 \times 6 = 18$$

FACTOR x FACTOR =

PRODUCT

PARTS OF DIVISION SENTENCE

quotient 6 R 1 remainder

divisor 3 $\overline{)19}$ dividend

$$\begin{array}{r} 6 \\ 3 \overline{)19} \\ \underline{-18} \\ 1 \end{array}$$

PARTS OF DIVISION SENTENCE

dividend

quotient

$$19 \div 3 = 6 \text{ R } 1$$

divisor

remainder

A spiral-bound notebook with a light-colored, textured cover. The spiral binding is on the left side. The text is centered on the cover.

MULTIPLICATION NUMBER PROPERTIES

NUMBER PROPERTIES MULTIPLICATION

- **PROPERTY OF ZERO-**
Zero times any number
equals zero.

Examples:

$$3 \times 0 = 0$$

$$0 \times 9 = 0$$

$$25 \times 0 = 0$$

NUMBER PROPERTIES

MULTIPLICATION

- **PROPERTY OF ONE-**
One times any number equals that number.

Examples:

$$3 \times 1 = 3$$

$$1 \times 14 = 14$$

$$7 \times 1 = 7$$

NUMBER PROPERTIES MULTIPLICATION

- COMMUTATIVE
PROPERTY -

Changing the **order** of the factors does **not** change the product.

Examples:

$$5 \times 3 = 15$$

$$3 \times 5 = 15$$

$$8 \times 9 = 72$$

$$9 \times 8 = 72$$

$$6 \times 4 = 24$$

$$4 \times 6 = 24$$

NUMBER PROPERTIES

MULTIPLICATION

- **ASSOCIATIVE**
PROPERTY- Changing the **grouping** of the factors does **not** change the product.

Examples:

$$(5 \times 2) \times 3 = 30$$

$$5 \times (2 \times 3) = 30$$

$$(6 \times 4) \times 2 = 48$$

$$6 \times (4 \times 2) = 48$$

A spiral-bound notebook with a light-colored, textured cover. The spiral binding is on the left side. The text is centered on the cover.

MULTIPLICATION & DIVISION FACT FAMILIES

Multiplication and Division Fact Families

$$6 \times 4 = 24$$

$$24 \div 6 = 4$$

$$4 \times 6 = 24$$

$$24 \div 4 = 6$$

$$5 \times 3 = 15$$

$$15 \div 5 = 3$$

$$3 \times 5 = 15$$

$$15 \div 3 = 5$$

Multiplication and Division Fact Families

$$1 \times 7 = 7$$

$$7 \div 1 = 7$$

$$7 \times 1 = 7$$

$$7 \div 7 = 1$$

$$9 \times 9 = 81$$

$$81 \div 9 = 9$$

Multiplication and division
are inverse operations.

Inverse means opposite.