教材 8 線對稱 Line Symmetry

核心單字	英文
點	Point
直線	Straight Line
線段	Segment
射線	Ray
角	Angle
多邊形	Polygon
對稱	Symmetry
線對稱	Line Symmetry
對稱線	Line of Symmetry

課本內容：

▶點

「點」是幾何中最基本的圖形，可用來表示位置，但不考慮它的大小。習慣上用大寫英文字母 A、B、C、P、Q、……代表點，如以 A 表示的點稱為點 A 或 A 點。

翻譯示例：

In geometry, a point is the simplest figure.

A point in space is just a location, regardless of its size.

It is usually denoted by the capital letters A, B, C, P, Q, etc to represent the point.

▶線

一個點在平面上連續移動所經過的路徑，稱為線。線沒有寬窄，當線彎曲時，稱為曲線；當線筆直無限延伸時，稱為直線。

翻譯示例：

A line is a collection of points along a path.

A line does not have any thickness

It is called a curve when a line is curved;

It is called a straight line when a line extends endlessly in both directions.

What is Line? - Definition Facts & Example (splashlearn.com)

＊直線

如右圖，直線 L 也稱為直線 AB 或 AB 直線，以 $\overleftrightarrow{AB}$ 表示。$\overleftrightarrow{AB}$ 也可用 $\overleftrightarrow{BA}$ 表示。

翻譯示例：

The straight line L is also called line AB.

It is represented by $\overrightarrow{AB}$ ($\overrightarrow{BA}$)

在平面上，相異兩點恰可決定一條直線，習慣上用英文字母 L、M、N……代表直線；當平面上有多條直線時，為了方便區分，也會用 L1、L2……表示各直線。

翻譯示例：

A straight line is determined by two different points on a plane.
They are usually denoted by the English letters L, M, N, etc;
In the case of multiple straight lines on the plane, L1 and L2 will also be used for easier differentiation.

＊線段

如右圖，直線 L 在 A、B 兩點間的部分稱為線段 AB 或 AB 線段，以 $\overline{AB}$ 表示。$\overline{AB}$

也可用 $\overline{BA}$ 表示。

$\overline{AB}$ 除了表示線段 AB 的位置與符號外，也可表示線段 AB 的長度。例如：$\overline{AB}$ 的

長度為 10 公分，可記為 $\overline{AB} = 10$ 公分。

翻譯示例：

Definition of Segment: Part of a line or curve.
In the figure on the right, the part of line L between points A and B is called line segment AB(BA).

It is represented by $\overline{AB}$ ($\overline{BA}$)

This segment can represent not only the position and symbol of segment AB but also its length.

For example, the length of $\overline{AB}$ is 4 cm, which can be denoted as $\overline{AB}$ =4 cm.

＊射線

以固定的一點 A 點為端點，通過 B 點並無限延伸的線，稱為射線 AB，以 $\overrightarrow{AB}$ 表示。

以固定的一點 B 點為端點，通過 A 點並無限延伸的線，稱為射線 BA，以 $\overrightarrow{BA}$ 表示。

$\overrightarrow{AB}$ 和 $\overrightarrow{BA}$ 代表的是不同的射線。

翻譯示例：

Definition of Ray

A part of a line with a starting point but no end point (it goes on indefinitely).

According to Figure 1, the line takes fixed point A as the endpoint, passes through point B, and extends indefinitely.

It is represented by $\overrightarrow{AB}$ and named ray AB.

According to Figure 2, the line takes fixed point B as the endpoint, passes through point A, and extends infinitely.

It is represented by $\overrightarrow{BA}$ and named ray BA.

補充：

The long distances are measured in kilometers. A kilometer equals 1000 meters. ~~The~~ kilometer is written in short as km.

1 kilometer (km) = 1000 meters (m) and 1000 m = 1 km

The different units of length and their equivalents are given here:

1 kilometer (km)	= 10 Hectometers (hm) = 1000 m
1 Hectometer (hm)	= 10 Decathletes (dcm) = 100 m
1 Demetre (dcm)	= 10 Metres (m)
1 Meter (m)	= 10 Decimeters (dm) = 100 cm = 1000 mm
1 Decimeter (dm)	= 10 Centimetres (cm)
1 Centimeter (cm)	= 10 Millimetres (mm)

https://www.math-only-math.com/units-for-measuring-length.html

Meters-to-Yards / Inches / Feet

1 m is equivalent to 1.0936 yards, 39.370 inches, or 3.28 feet.

● The foot is a unit of length used in the imperial and U.S. customary measurement systems, representing 1/3 of a yard, and is subdivided into twelve inches.

● The inch is a unit of length used primarily in the imperial and U.S. customary measurement systems, representing 1/12 of a foot and 1/36 of a yard.

https://www.metric-conversions.org/length/meters-to-inches.htm

參考資料來源

1. 110 國中數學 1 上翰林版課本

2. [What is Line? - Definition Facts & Example (splashlearn.com)](splashlearn.com)

3. https://www.math-only-math.com/units-for-measuring-length.html

4. https://www.metric-conversions.org/length/meters-to-inches.htm

☆老師們可以自己從中選擇以做出適合自己學生程度的學習單或是在課堂中適時補充這些英文。

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