Comparison and Scale Analysis of Answers: Obstacles to Discuss

From the example problem above we can see that to compare two quantities we must pay attention:

- Compare one quantity with another
- Equalize the units
- Simplify the comparison form

From the problem solving above we can also draw conclusions:

- The ratio between a and b can be written as a/b or a:b where a and b are natural numbers and not 0.
- Comparison in simple form is where a and b no longer have any common factors except 1.

Comparative value

Equivalent comparison is a comparison that has the property of magnitude if one increases, then the other will also increase. An example is the comparison between the number of pencils bought and the money to be paid. The more pencils you buy, the more money you have to pay.

Comparison of inverse values

An inverse value comparison is a comparison that has the property of magnitude if one increases then the other will decrease. An example is the number of construction workers and the duration of a building. If there are more workers, the building will be built faster.

Scale and Comparison Materials

Talking about scale, you must remember the scale of the map, how do you read the scale on the map? pay attention to the following description:

A house design is drawn with a scale of 1: 50, the meaning of a scale of 1: 50 is that every one centimeter distance in the picture represents 50 centimeters of real distance. If the length of the house in the design drawing is shown with a distance of 10 cm then the actual length of the house is 10 x 50 cm = 500 cm.

From this description, we can draw a conclusion about the meaning of scale.

Scale is the difference between the distance on the drawing and the actual distance. Scale is usually used on site plans, maps, and plans of objects.

Scale writing example:

1 : 20,000, 1:15,000, and 1:1,750,000.

Scale Formula

$$\text{Skala Peta} = \frac{\text{Jarak di peta}}{\text{Jarak sebenarnya}}$$

Example of a scale problem:
A map with a scale of 1 : 25,000, what is the actual distance if the map is shown with a distance of 4 cm.

Answer:
distance on the map 4 cm
the actual distance is 4 x 25,000 cm = 100,000 cm

Forms of Comparison

Valuation bandings

What is the meaning of a value comparison, a value comparison is a comparison that has the property that if one quantity increases, the other quantity also increases.

an example of a like-for-like comparison:

1. Many pencils are bought with large sums of money to pay for
2. Distance with speed

If A and B are equal :

A	B
a_1	b_1
a_2	b_2

then applies a1/a2 = b1/b2

Comparison of inverse values

A comparison is an inverse value comparison if it has the property that if one quantity increases, the other quantity decreases.
example of inverse value comparison:

1. Many workers with a set time for completion
2. travel time with speed.