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for a shaft and hole system, given that the basic size is equal to 20 mm, the upper deviation of the shaft is equal to 0.15 mm, the lower deviation of the shaft is equal to 0.08 mm, the lower deviation of the hole is (minus 0.05 mm), and the upper deviation of the hole is (minus 0.01 mm), the type of fit between the shaft and the hole is -----

- ☐ a. clearance
- ☒ b. interference
- ☐ c. transaction
- ☐ d. none of the above is correct

Clear my choice



Next page

here to search



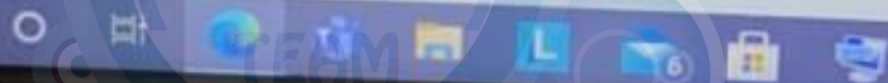
the accuracy of the following vernier bevel protractor is -----



- ☐ a. 1 degree
- ☐ b. 1 minute
- ☐ c. 2.5 minutes
- ☒ d. 5 minutes
- ☐ e. none of the above is correct

Clear my choice

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If an instrument is ----- it would give different results for the same dimension for the repeated readings.

- ☐ a. calibrated and precise
- ☐ b. not precise
- ☐ c. precise and not calibrated
- ☐ d. both b and c are correct
- ☐ e. none of the above is correct

The reading of this vernier caliper is ----- mm.

LOGY & ENG.MEASUREMENTS

courses

METROLOGY & ENG.MEASUREMENTS

General

mid-term exam (0936411)

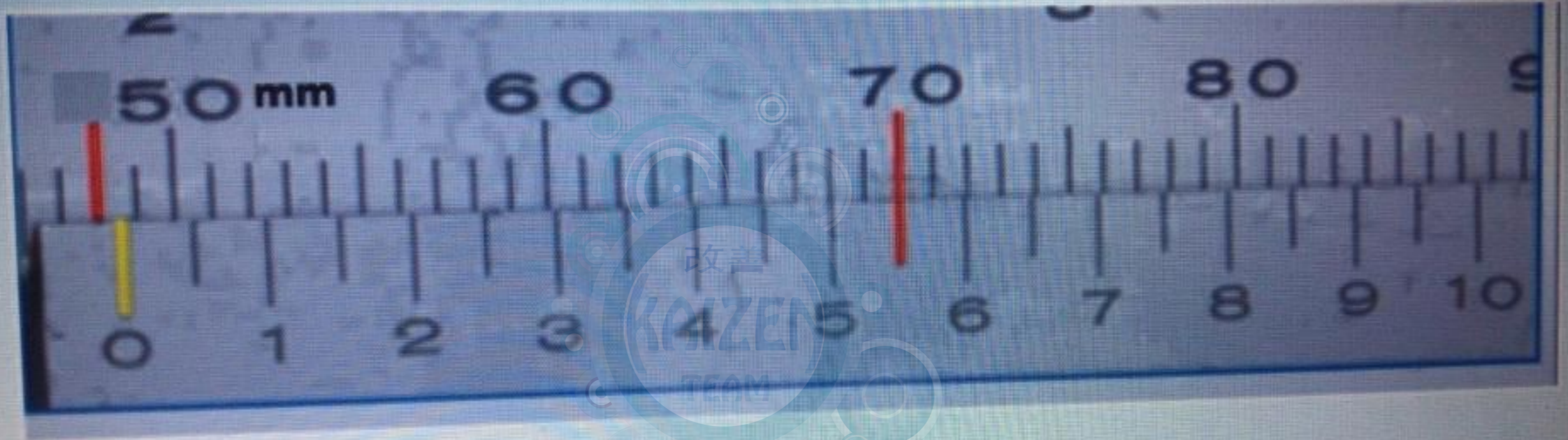
Time left 0:28:28

----- is defined as the maximum amount by which the result differs from true value or as the nearness of the measured values to its true value.

- ☐ a. accuracy
- ☐ b. precision
- ☐ c. repeatability
- ☐ d. both b and c are correct
- ☐ e. none of the above is correct

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The reading of this vernier caliper is ----- mm .



Answer: 49.77

Clear my choice

Question 10

yet

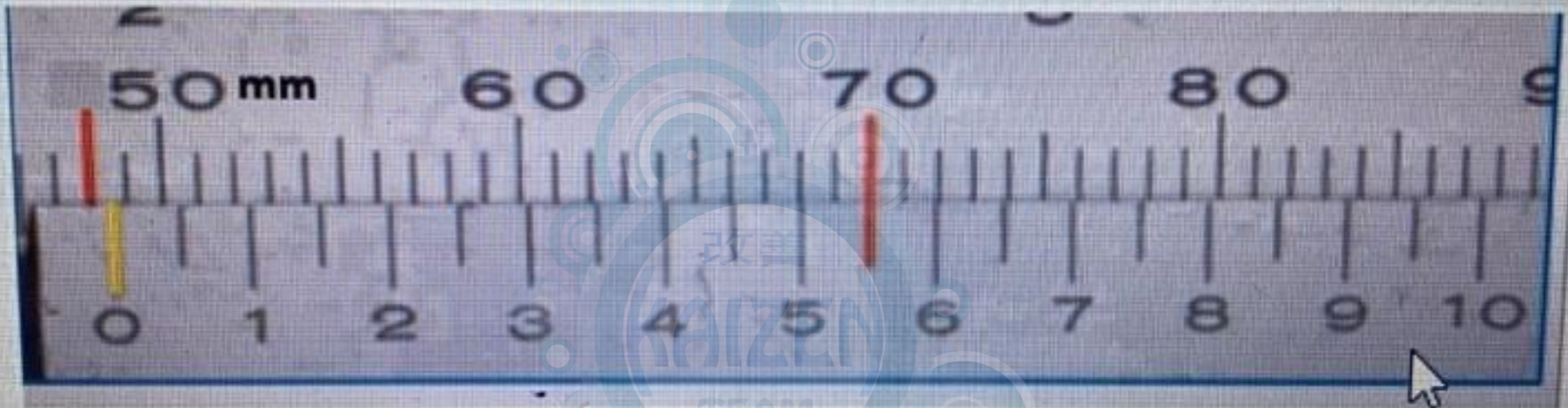
answered

marked out of

Flag

Question

The reading of this vernier caliper is ----- mm.



Answer:

The reading of this vernier caliper is ----- mm.



Answer: 49.77

n 11

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Calibration has no effect on random error.

Select one:

☐ True

☐ False

on 12

Minimum systematic error means

- ☐ c. repeatability
- ☐ d. both b and c are correct
- ☐ e. none of the above is correct

which of the following is considered a basic element of measurements:

- ☐ a. measurand
- ☐ b. comparator
- ☐ c. reference
- ☐ d. all of the above are correct
- ☐ e. none of the above is correct

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TEAM

search

Minimum systematic error means-----

- ☐ a. more accurate result
- ☐ b. more precise result
- ☐ c. less accurate result
- ☐ d. less precise result
- ☐ e. none of the above is correct

The accuracy of this micrometer is ----- mm.

Note: the number of divisions on the thimble is 50 divisions.



Answer:

systematic errors can be eliminated by taking a large number of readings and then averaging them out.

Select one:

- ☐ True
- ☐ False

If an instrument is ----- it would give different results for the same dimension for the repeated readings.

- ☐ a. calibrated and precise
- ☐ b. not precise
- ☐ c. precise and not calibrated
- ☐ d. both b and c are correct
- ☐ e. none of the above is correct



LOGY & ENG.MEASUREMENTS

y courses

METROLOGY & ENG.MEASUREMENTS

General

mid-term exam (09364

Time left 0:2

for a shaft and hole system, given that the basic size is equal to 30 mm, the minimum clearance is equal to 0.1 mm, the upper deviation of the shaft is (minus 0.06) mm, then **lower deviation** of the hole is equal to ----- mm.

Answer:

The reading of the following vernier micrometer is ----- mm.

Note: the number of divisions on the thimble is 50 divisions.

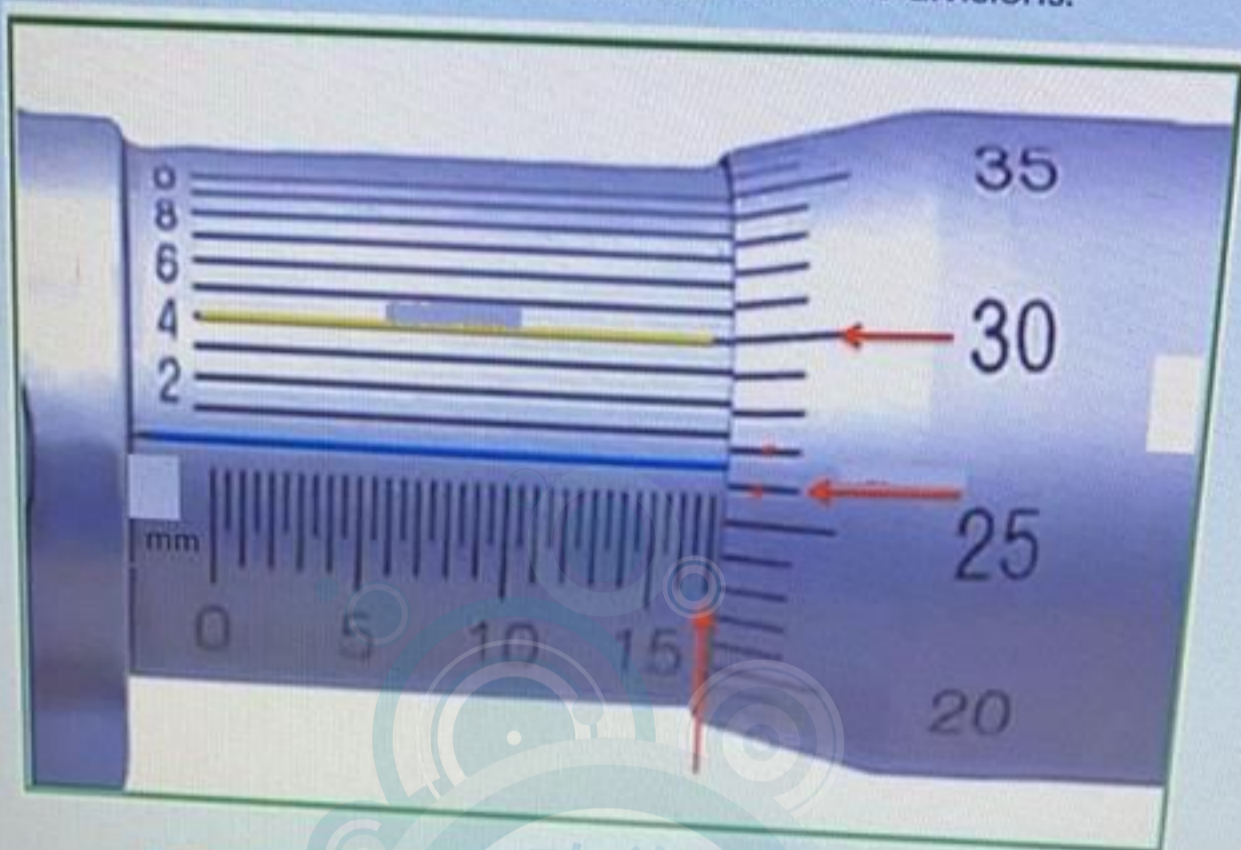
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Answer:

The reading of the following vernier micrometer is ----- mm.

Note: the number of divisions on the thimble is 50 divisions.



Answer:

earch



Which of the following is correct?

- ☐ a. for clearance fit the allowance is positive , for interference fit the allowance is negative.
- ☐ b. a positive allowance is either for (clearance, or transaction) fit.
- ☐ c. a negative allowance is either for (transaction, or interference) fit.
- ☐ d. a positive allowance means a clearance fit, and a negative allowance means interference fit
- ☒ e. only b and c are correct
- ☐ f. all of (a, b, and c) are correct
- ☐ g. none of the above is correct

Clear my choice

Next page

-----, this type of error may occur due to improper use, handling, or selection of the instrument.

- ☐ a. zero error
- ☐ b. calibration error
- ☐ c. avoidable error
- ☐ d. misalignment error
- ☐ e. both a and b are correct
- ☐ f. both c and d are correct
- ☐ g. none of the above is correct





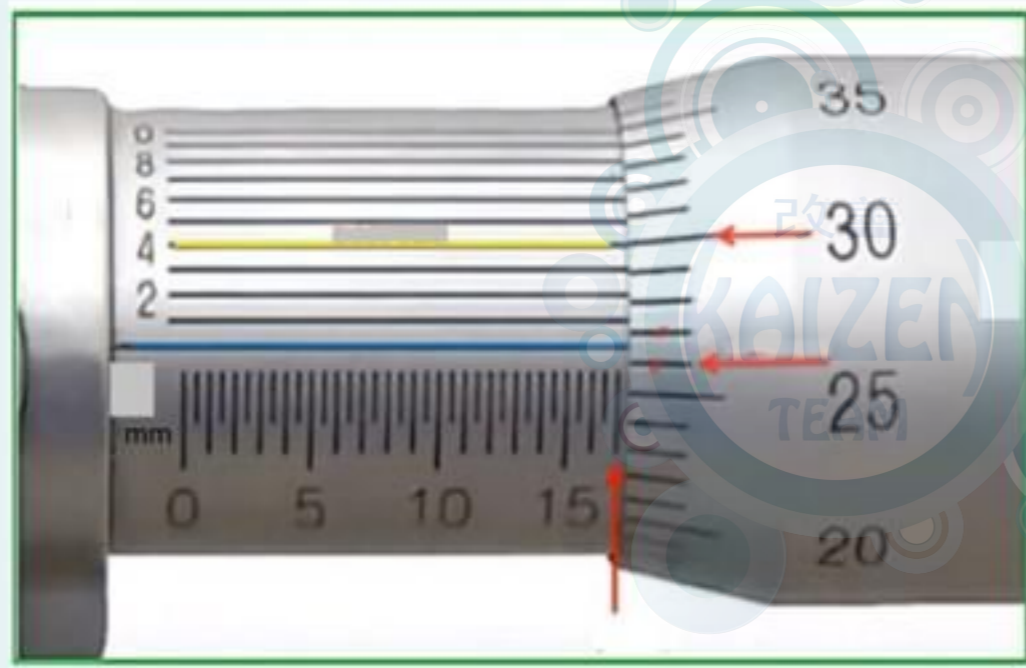
Time left 0:19:45

31

Finish attempt ...

Question 18
Not yet answered
Marked out of 1.00
Flag question

The reading of the following vernier micrometer is ----- mm.
Note: the number of divisions on the thimble is 50 divisions.



Answer: 17.254

Question 16

Not yet
answered

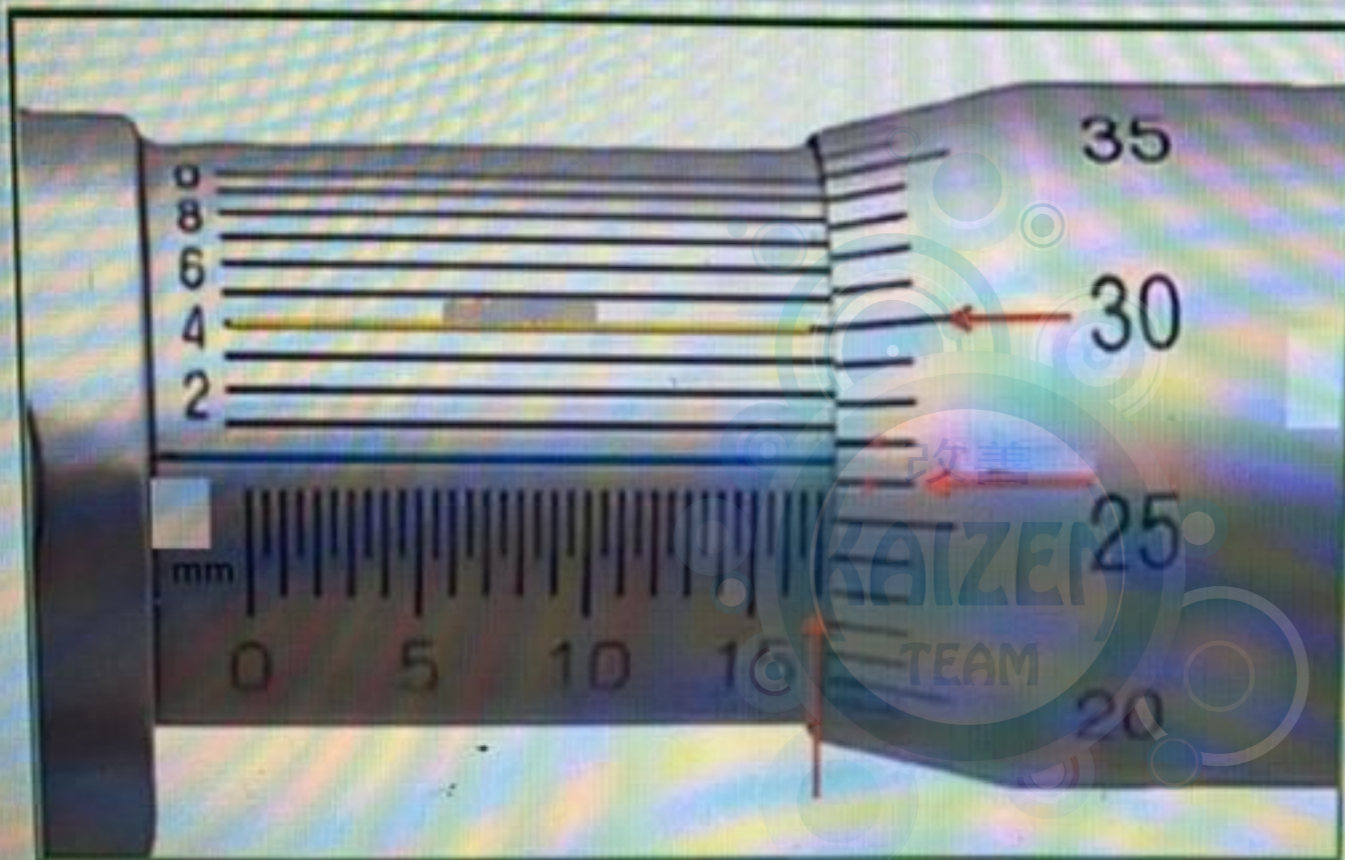
Marked out of
1.00

Flag
question

Time left 0:21:31

The reading of the following vernier micrometer is ----- mm.

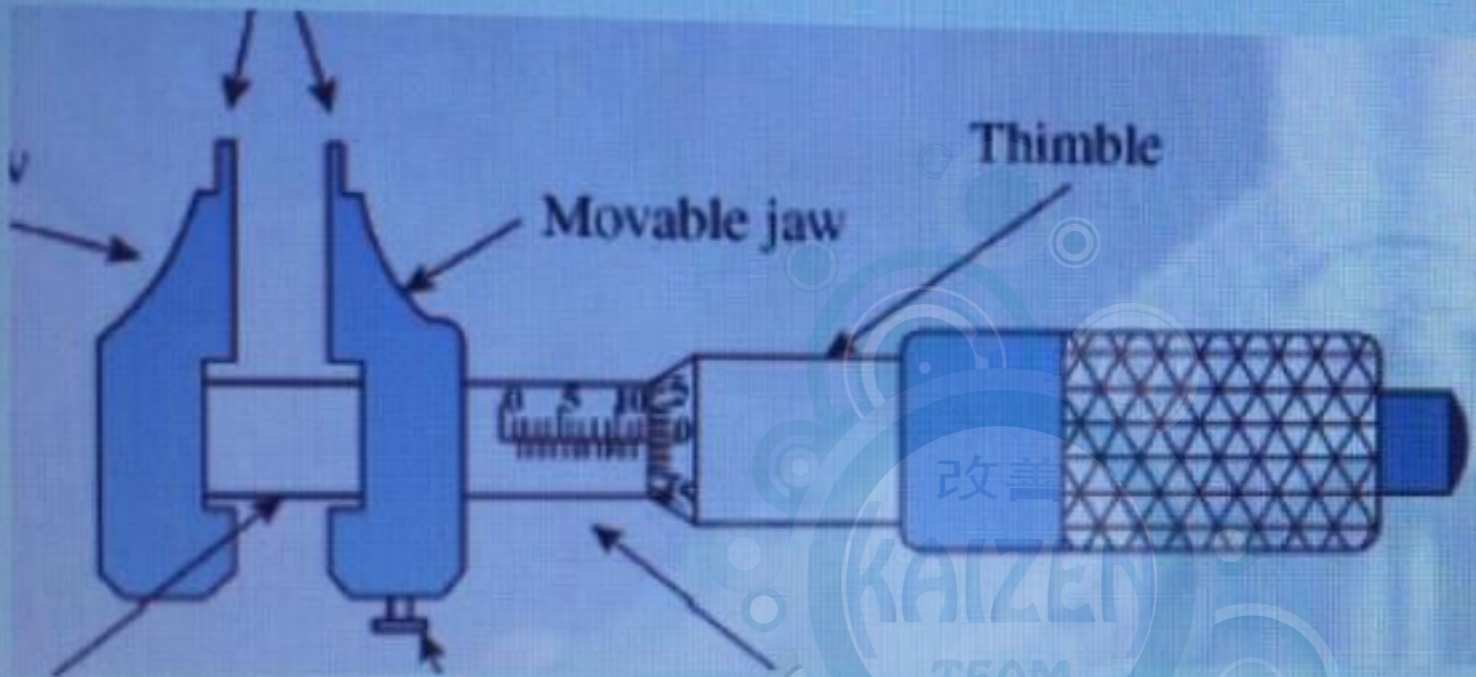
Note: the number of divisions on the thimble is 50 divisions.



Answer:

Next page

the device in the following figure follows Abbes's principle



Select one:

- ☐ True
- ☐ False

Time left

for a shaft and hole system, given that the basic size is equal to 30 mm, the minimum clearance is equal to 0.1 mm, the lower deviation of the hole is equal to 0.06 mm, the tolerance of the hole is equal to 0.1 mm,

then the **higher limit** of the hole is ----- mm.

Answer:

for a shaft and hole system, given that the basic size is equal to 30 mm, the minimum clearance is equal to 0.1 mm, the lower deviation of the hole is equal to 0.05 mm, the tolerance of the shaft is 0.05 mm.

the **lower limit** of the shaft is ----- mm.

Answer:

earch



The error that occur when the sight is not perpendicular to the instrument scale or the observer reads the instrument from an angle is an example on -----

- ☐ a. parallax error
- ☐ b. avoidable error
- ☐ c. reading error
- ☐ d. calibration error
- ☐ e. both a and b are correct
- ☐ f. both b and c are correct
- ☐ g. none of the above is correct



on 17

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The reading of this vernier caliper is ----- mm.



Answer:

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for a shaft and hole system, given that the basic size is equal to 30 mm, the minimum clearance is 0.1 mm, the lower deviation of the hole is equal to 0.06 mm. the tolerance of the hole is equal to 0.1

Time left 0:15:14

The GO Gauge is used to check the maximum metal limit, while the NOT GO Gauge is used to check the minimum metal limit

Select one:

- ☐ True
- ☐ False



for a shaft and hole system, given that the basic size is equal to 30 mm, the minimum clearance is equal to 0.1 mm, the lower deviation of the hole is equal to 0.05 mm, the tolerance of the shaft is 0.05 mm.

Left is ----- mm.

Quiz

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13

19

25

31

Finish

The reading of this vernier caliper is ----- mm.



Answer:

for a shaft and hole system, given that the basic size is equal to 30 mm, the minimum clearance is equal to 0.1 mm, the lower deviation of the hole is equal to 0.06 mm, the tolerance of the hole is equal to 0.1 mm, then the **higher limit** of the hole is ----- mm.

Answer:

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Next page

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Info

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for a shaft and hole system, given that the basic size is equal to 30 mm, the minimum clearance is equal to 0.1 mm, the lower deviation of the hole is equal to 0.06 mm, the tolerance of the hole is equal to 0.1 mm, then the **higher limit** of the hole is ----- mm.

Answer:

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Next page

in a shaft and hole system, if the maximum metal limit for a shaft is 25.05 mm and the lower metal limit for the shaft is 25.00 mm, the maximum metal limit of the hole is 24.95 mm, and the minimum metal limit of the hole is 25.02 mm, then the type of fit for this system is -----

- ☐ a. clearance
- ☐ b. interference
- ☐ c. transaction
- ☐ d. none of the above is correct

Next page

- ☒ d. 5 minutes
- ☐ e. none of the above is correct

Clear my choice

Question 20

Not yet
answered

Marked out of
1.00

Flag
question

----- may be defined as the mean of the infinite number of measured values when the average deviation due to the various contributing factors tends to zero.

- ☐ a. the measured value
- ☐ b. the true value
- ☐ c. the reference value
- ☐ d. the deviated value
- ☐ e. the bias
- ☐ f. none of the above is correct

Time left 0:09

Question 21
Not yet answered
Marked out of 1.00
Flag question

If the higher limit of a hole is equal to 40.40 mm, and its lower deviation is 0.04 mm, and the basic size is equal to 40.30 mm,

then the tolerance of the hole is ----- mm.

Answer:

Question 22
Not yet answered
Marked out of 1.00
Flag question

----- is defined as the degree of repetitiveness of the measuring process.

- ☐ a. accuracy
- ☐ b. precision
- ☐ c. both a and b are correct
- ☐ d. none of the above is correct

Type here to search



Time left 0:11:46

Question 21

Not yet
answered

Marked out of
1.00

Flag
question

the reading of the following vernier bevel protractor



- ☐ a. 51 degree and 30 minutes
- ☐ b. 52 degree and 30 minutes
- ☐ c. 63 degree and 30 minutes
- ☐ d. 63 degree and 51 minutes

The reading on the following depth micrometer is ----- mm.

Note: the number of divisions on the thimble is 50 divisions.



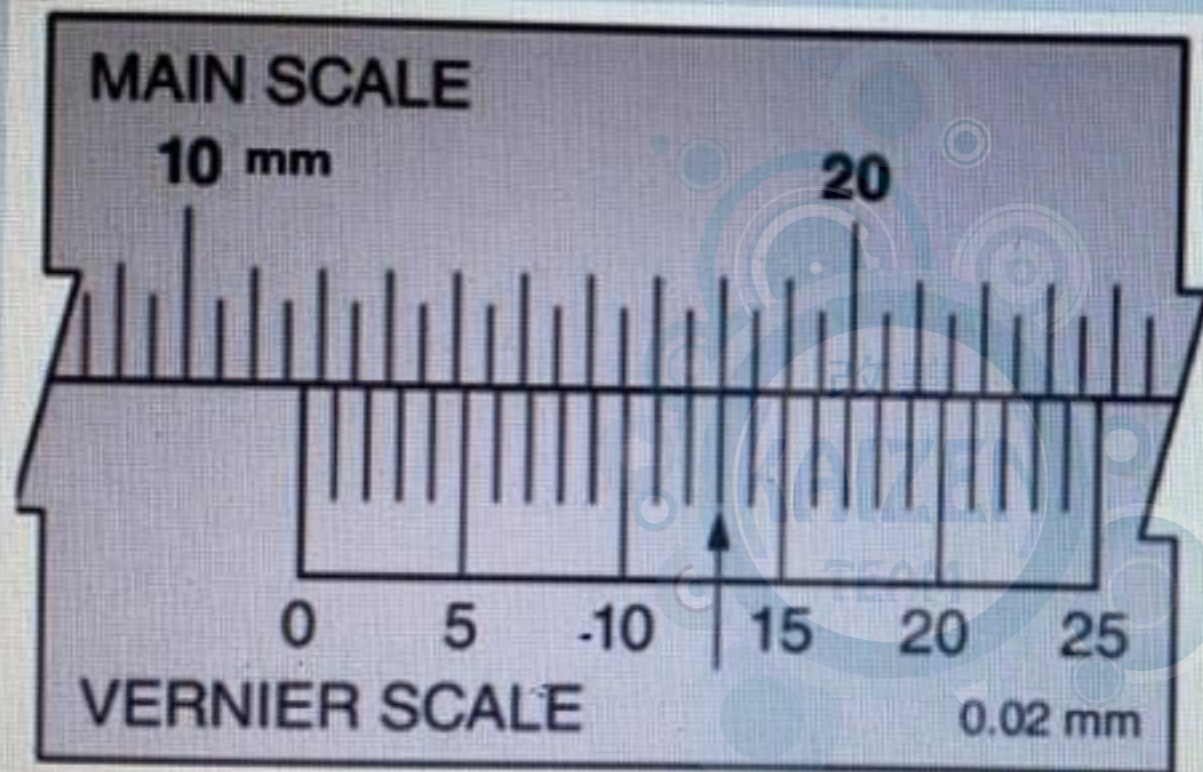
Question 23

Not yet
answered

Marked out of
1.00

Flag
question

the **accuracy** of the following vernier caliper is ----- mm



Answer:

Which of the following is correct?

- ☐ a. for clearance fit the allowance is positive, for interference fit the allowance is negative.
- ☐ b. a positive allowance is either for (clearance, or transition) fit.
- ☐ c. a negative allowance is either for (transition, or interference) fit.
- ☐ d. a positive allowance means a clearance fit, and a negative allowance means interference fit
- ☐ e. only b and c are correct
- ☐ f. all of (a, b, and c) are correct
- ☐ g. none of the above is correct

In a shaft and hole system, if the maximum metal limit for a shaft is 25.05 mm and the lower metal limit for the shaft is 25.00 mm, the maximum metal limit of the hole is 24.95 mm, and the minimum metal limit of the hole is 25.02 mm, then the type of fit for this system is -----

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☐ g. none of the above is correct

Time left 0:06:34

----- may be defined as the mean of the infinite number of measured values when the average deviation due to the various contributing factors tends to zero.

- ☐ a. the measured value
- ☐ b. the true value
- ☐ c. the reference value
- ☐ d. the deviated value
- ☐ e. the bias
- ☐ f. none of the above is correct

Next page

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Question 25

Not yet
answered

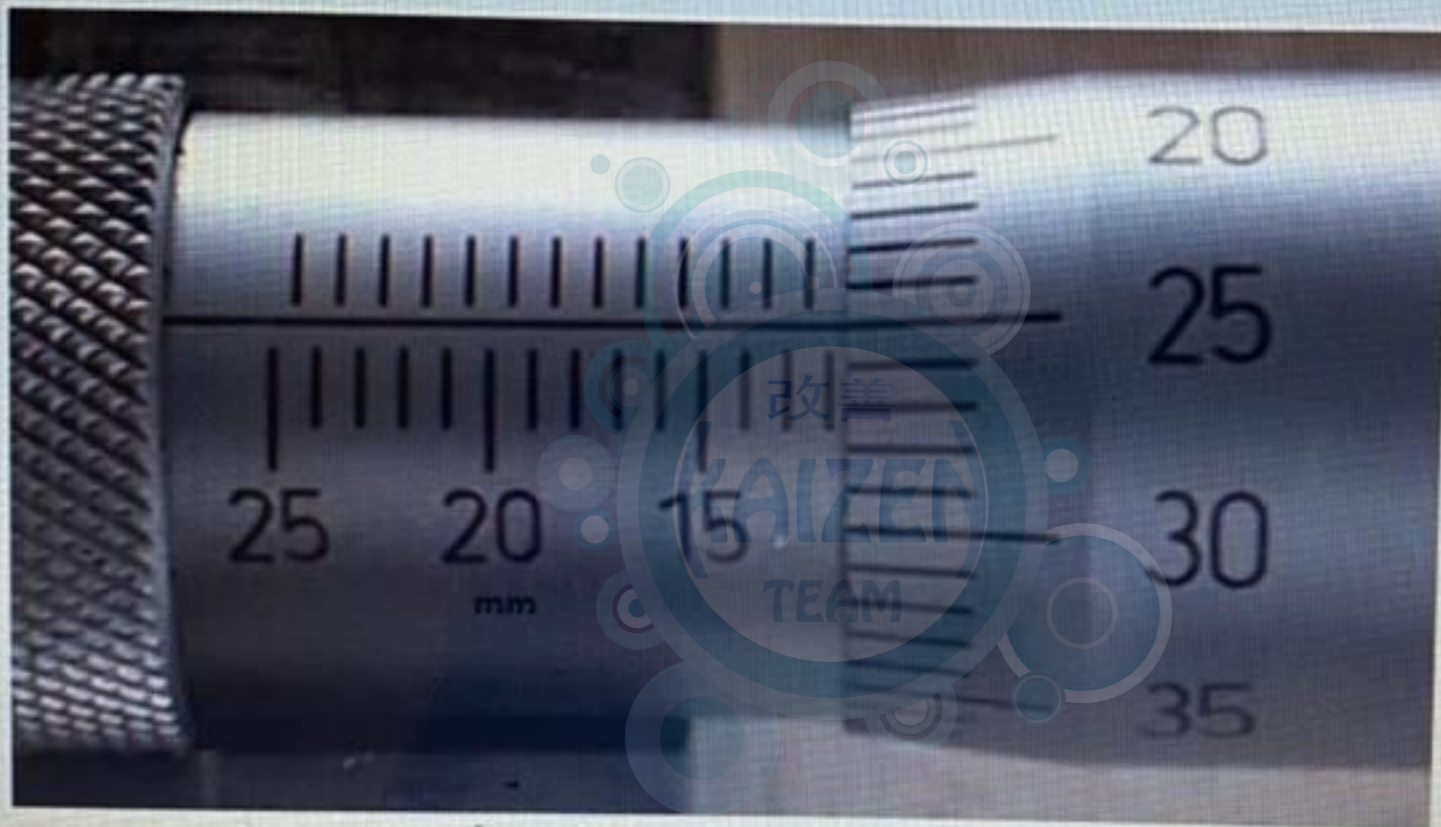
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1.00

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question

Time

The reading or the following depth micrometer is ----- mm.

Note: the number of divisions on the thimble is 50 divisions.



Answer:

Question 26

Answer: 11.75

for a shaft and hole system, given that the basic size is equal to 30 mm, the minimum clearance is equal to 0.1 mm, the upper deviation of the shaft is (minus 0.06) mm, then **lower deviation** of the hole is equal to ----- mm.

Answer:

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Next page



- ☐ e. only b and c are correct
- ☐ f. all of (a, b, and c) are correct
- ☐ g. none of the above is correct

Time left 0:07:41

in a shaft and hole system, if the maximum metal limit for a shaft is 25.05 mm and the lower metal limit for the shaft is 25.00 mm, the maximum metal limit of the hole is 24.95 mm, and the minimum metal limit of the hole is 25.02 mm, then the type of fit for this system is -----

- ☐ a. clearance
- ☐ b. interference
- ☐ c. transaction
- ☐ d. none of the above is correct

Next page

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Time left 0:06:39

-----, this type of error may occur due to improper use, handling, or selection of the instrument.

- ☐ a. zero error
- ☐ b. calibration error
- ☐ c. avoidable error
- ☐ d. misalignment error
- ☐ e. both a and b are correct
- ☐ f. both c and d are correct
- ☐ g. none of the above is correct

----- may be defined as the mean of the infinite number of measured values when the average deviation due to the various contributing factors tends to zero.

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27

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The accuracy of this vernier caliper is ----- mm.



Answer:

28

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Flag
question

The GO Gauge is used to check the maximum metal limit, while the NOT GO Gauge is used to check the minimum metal limit.

Select one:

- ☐ True
☐ False

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Most recent

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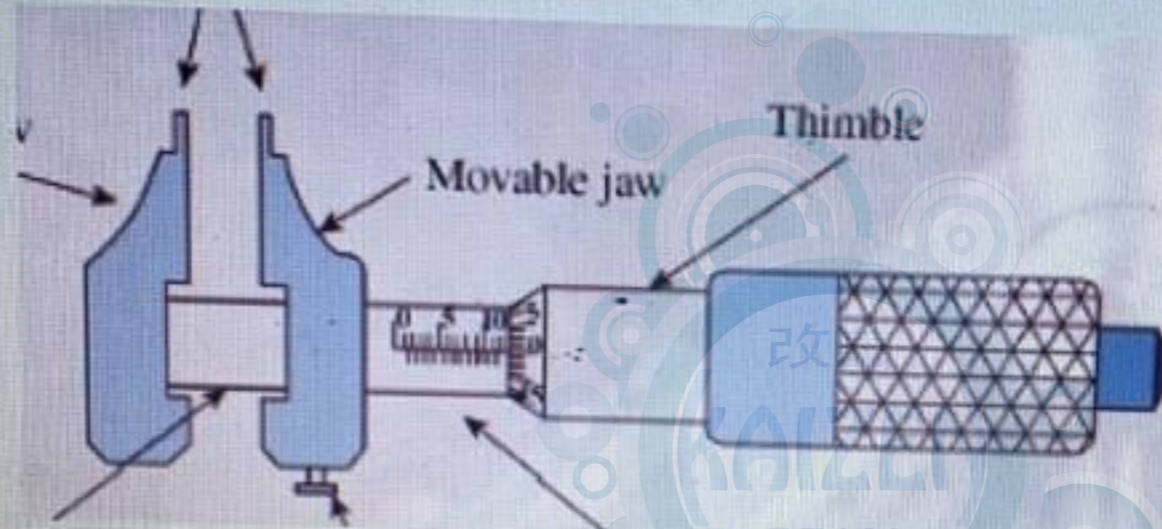
Question 27

Not yet
answered

Marked out of
1.00

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question

the device in the following figure follows Abbes's principle



Select one:

☐ True

☐ False

Question 28

for a shaft and hole system, given that the basic size is equal to 30 mm, the minimum clear

○ False

for a shaft and hole system, given that the basic size is equal to 30 mm, the minimum clearance is equal to 0.1 mm, the lower deviation of the hole is equal to 0.05 mm, the tolerance of the shaft is 0.05 mm.

the lower limit of the shaft is ----- mm.

Answer:

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TEAM

Next page



Minimum systematic error means-----

- ☐ a. more accurate result
- ☐ b. more precise result
- ☐ c. less accurate result
- ☐ d. less precise result
- ☐ e. none of the above is correct

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- ☐ b. repeatability
- ☐ c. accuracy
- ☐ d. both a and b are correct
- ☐ e. none of the above is correct

Time left

for a shaft and hole system, given that the basic size is equal to 25 mm, the minimum clearance is equal to 0.1 mm, the lower deviation of the hole is equal to 0.03 mm, then the higher limit of the shaft is ----- mm

Answer:

Next page

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Time left

for a shaft and hole system, given that the basic size is equal to 30 mm, the minimum clearance is equal to 0.1 mm, the lower deviation of the hole is equal to 0.06 mm, the tolerance of the hole is equal to 0.1 mm,

then the **higher limit** of the hole is ----- mm.

Answer:

for a shaft and hole system, given that the basic size is equal to 30 mm, the minimum clearance is equal to 0.1 mm, the lower deviation of the hole is equal to 0.05 mm, the tolerance of the shaft is 0.05 mm.

the **lower limit** of the shaft is ----- mm.

Answer:

earch



----- is defined as the degree of agreement of the measured dimension with its true magnitude.

- ☐ a. precision
- ☐ b. repeatability
- ☐ c. accuracy
- ☐ d. both a and b are correct
- ☐ e. none of the above is correct

30 for a shaft and hole system, given that the basic size is equal to 25 mm, the minimum clearance is equal to 0.1 mm, the lower deviation of the hole is equal to 0.03 mm, then the higher limit of the shaft is ----- mm

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TEAM

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The error that occur when the sight is not perpendicular to the instrument scale or the observer reads the instrument from an angle is an example on -----

- ☐ a. parallax error
- ☐ b. avoidable error
- ☐ c. reading error
- ☐ d. calibration error
- ☐ e. both a and b are correct
- ☐ f. both b and c are correct
- ☐ g. none of the above is correct



Question 30

which of the following is considered a basic element of measurement



- ☒ a. 51 degree and 30 minutes
- ☐ b. 52 degree and 30 minutes
- ☐ c. 63 degree and 30 minutes
- ☐ d. 63 degree and 51 minutes

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| 13 | 14 |
| 19 | 20 |
| 25 | 26 |
| 31 | |

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systematic errors can be eliminated by taking a large number of readings and then averaging them out.

Select one:

☐ True

☒ False



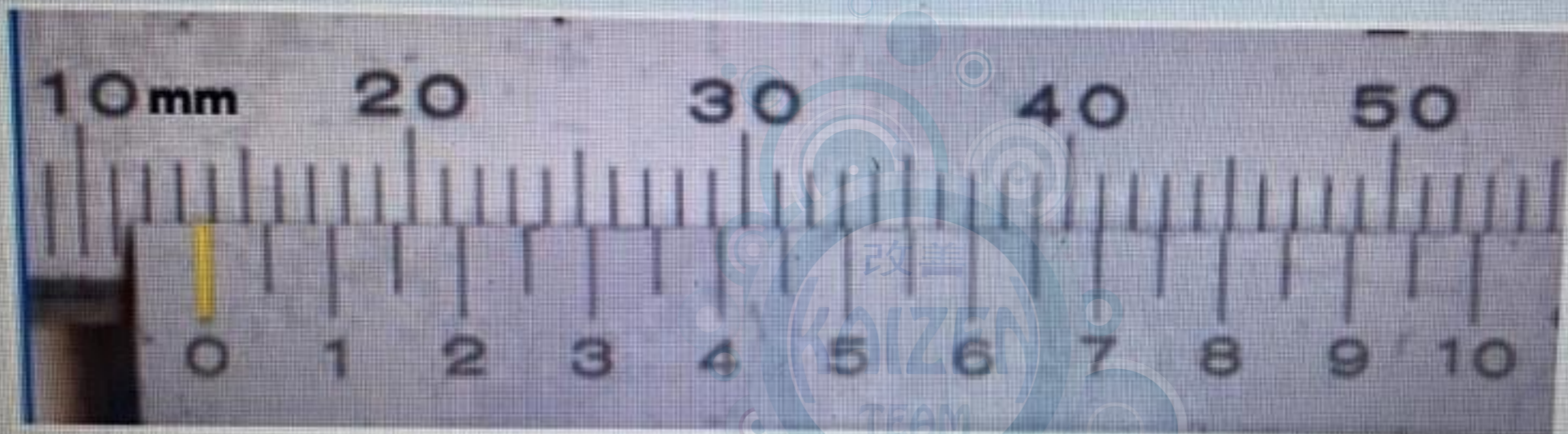
Next page

----- may be defined as the mean of the infinite number of measured values when the average deviation due to the various contributing factors tends to zero.

- ☐ a. the measured value
- ☐ b. the true value
- ☐ c. the reference value
- ☐ d. the deviated value
- ☐ e. the bias
- ☐ f. none of the above is correct



The **accuracy** of this vernier caliper is ----- mm.



Answer:

Question 45

Not yet
answered

Marked out of
1.00

Flag
question

when using thermocouples, the relationship between temperature and voltage is linear.

Select one:

- ☐ True
- ☐ False



Next page

Previous activity

30

which of the following is considered a basic element of measurements:

- ☐ a. measurand
- ☐ b. comparator
- ☐ c. reference
- ☐ d. all of the above are correct
- ☐ e. none of the above is correct



Time left 0:49:18

There are basically two approaches for measuring the surface roughness is : (1) the comparison, (2) the direct measurements. the former is the simpler but the second is the more accurate.

Select one:

☒ True

☐ False

given the following Table for an (S) Type thermocouple

TABLE 15 Type S Thermocouple — thermoelectric voltage as a function of temperature ($^{\circ}\text{C}$); reference junctions at 0°C

5°C

Quiz no

1

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12

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17

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22

Finish c

Time left 0:49:11

Question 1

Not yet
answered

Marked out of
2.00

Flag
question

Calibration of the measuring device can help in reducing the the random error occurs during measurements.

Select one:

- ☐ True
☐ False

Question 2

Not yet
answered

Marked out of
2.00

Flag
question

In a shaft and hole system, the tolerance of the hole is always greater than the tolerance of the shaft.

Select one:

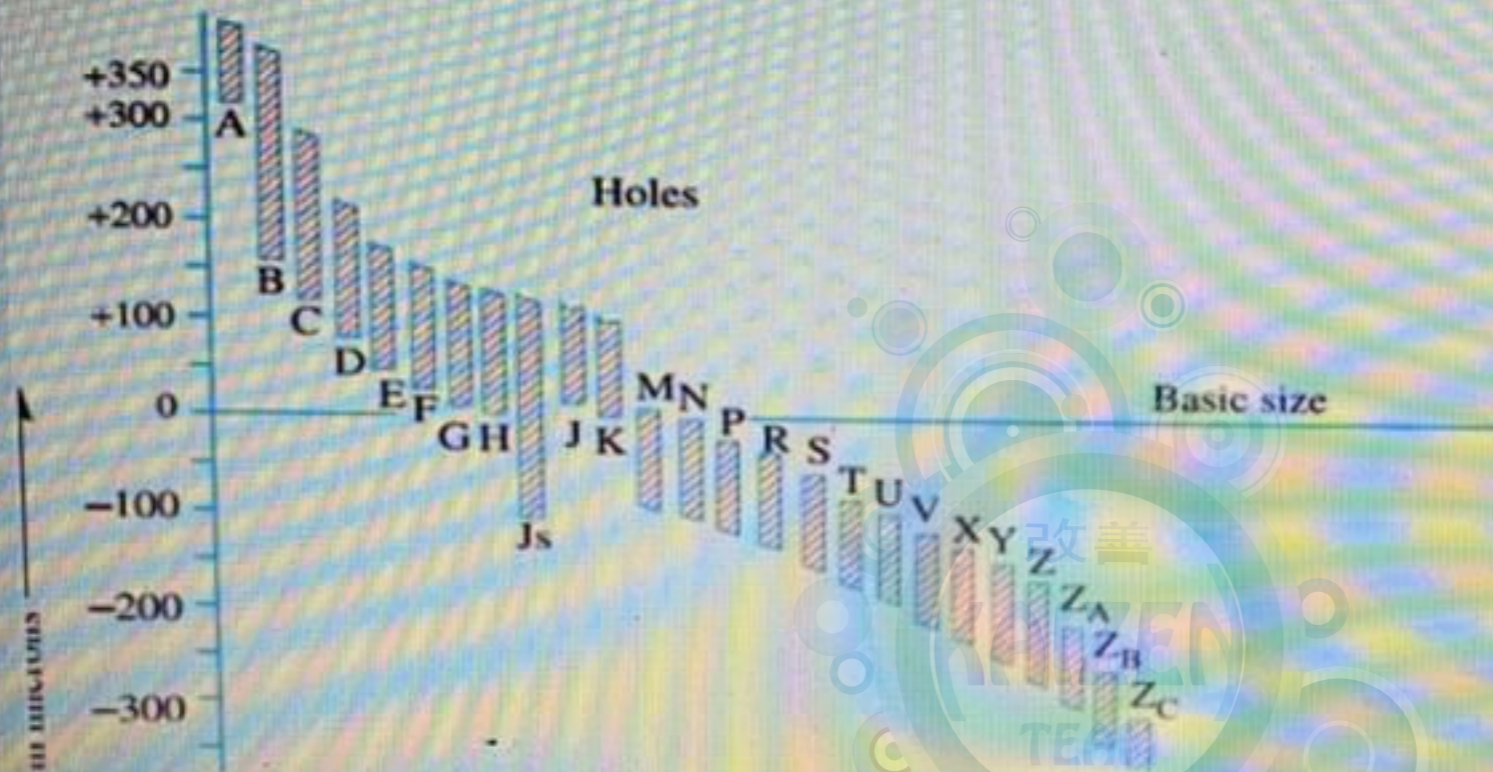
- ☐ True
☐ False

Quiz navigation

| | | | |
|----|----|----|----|
| 1 | 2 | 3 | 4 |
| 7 | 8 | 9 | 10 |
| 13 | 14 | 15 | 16 |
| 19 | 20 | 21 | 22 |
| 25 | | | |

Finish attempt ...

given the following figure for fundamental deviation values for the holes



if a hole of type H is to be assembled with a shaft of type a, then the type of fit is -----

- ☐ a. clearance
- ☐ b. interference
- ☐ c. transition
- ☐ d. none of the above is correct

Question 2

Not yet
answered

Marked out of
2.00

Flag
question

There are basically two approaches for measuring the surface roughness is : (1) the comparison, (2) the direct measurements. the former is the simpler but the second is the more accurate.

Select one:

☒ True

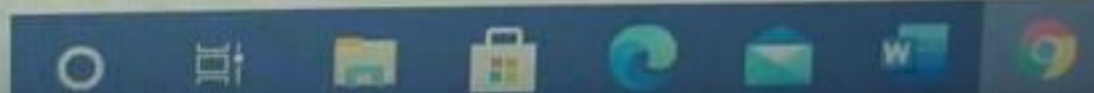
☐ False



Next page

Stay in touch

Type here to search



the tolerance of any shaft is equal to the difference between its upper deviation and its lower deviation.

Select one:

☒ True

☐ False



Next page

search

