Measurement, Precision, Accuracy and Tolerance — Practice Test

Saskatchewan Workplace and Apprenticeship Mathematics 30 • 25 questions

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A part has nominal length 100 mm with tolerance plus or minus 5 mm. The acceptable range is**

- A 95 to 105 mm
- B 100 to 105 mm
- C 95 to 100 mm
- D 90 to 110 mm

Understand It with Pulse | Flag a mistake

2 **A true value is 400 and a measured value is 404. The percent error is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A measurement of 8.2 cm is recorded to the last digit shown. Its precision, in centimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **A ruler marked in millimetres measures a length as 3 cm. The smallest division, in centimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A measurement is recorded as 30 cm to the nearest centimetre. The lowest possible true value, in centimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **A measurement is recorded as 40 cm to the nearest centimetre. The highest possible true value, in centimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **A measurement is recorded as 12.0 cm. How many significant figures does it have?**

- A 2
- B 3
- C 1
- D 4

Understand It with Pulse | Flag a mistake

8 **A part has nominal length 20 mm with tolerance plus or minus 5 mm. The acceptable range is**

- A 20 to 25 mm
- B 15 to 20 mm
- C 15 to 25 mm
- D 10 to 30 mm

Understand It with Pulse | Flag a mistake

9 **A true value is 200 and a measured value is 195. The percent error is**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 **A measurement of 15.6 cm is recorded to the last digit shown. Its precision, in centimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

11 **A ruler marked in millimetres measures a length as 8 cm. The smallest division, in centimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

12 **A measurement is recorded as 10 cm to the nearest centimetre. The lowest possible true value, in centimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

13 **A part has nominal length 75 mm with tolerance plus or minus 1 mm. The acceptable range is**

- A 75 to 76 mm
- B 74 to 75 mm
- C 73 to 77 mm
- D 74 to 76 mm

Understand It with Pulse | Flag a mistake

14 **A true value is 200 and a measured value is 190. The percent error is**

ANSWER _____

Understand It with Pulse | Flag a mistake

15 **A measurement of 9.18 cm is recorded to the last digit shown. Its precision, in centimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

16 **A ruler marked in millimetres measures a length as 5 cm. The smallest division, in centimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

17 **A part has nominal length 200 mm with tolerance plus or minus 1 mm. The acceptable range is**

A 199 to 201 mm

B 200 to 201 mm

C 199 to 200 mm

D 198 to 202 mm

Understand It with Pulse | Flag a mistake

18 **A true value is 50 and a measured value is 60. The percent error is**

ANSWER _____

Understand It with Pulse | Flag a mistake

19 **A measurement of 7.35 cm is recorded to the last digit shown. Its precision, in centimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

20 **A ruler marked in millimetres measures a length as 11 cm. The smallest division, in centimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

21 **A part has nominal length 20 mm with tolerance plus or minus 10 mm. The acceptable range is**

A 20 to 30 mm

B 10 to 30 mm

C 10 to 20 mm

D 0 to 40 mm

Understand It with Pulse | Flag a mistake

22 **A true value is 50 and a measured value is 54. The percent error is**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **A measurement of 20.5 cm is recorded to the last digit shown. Its precision, in centimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **A part has nominal length 100 mm with tolerance plus or minus 10 mm. The acceptable range is**

A 100 to 110 mm

B 90 to 100 mm

C 90 to 110 mm

D 80 to 120 mm

Understand It with Pulse | Flag a mistake

25 **A true value is 200 and a measured value is 205. The percent error is**

ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	A	**10.**	0.1	**19.**	0.01
2.	1	**11.**	0.1	**20.**	0.1
3.	0.1	**12.**	9.5	**21.**	B
4.	0.1	**13.**	D	**22.**	8
5.	29.5	**14.**	5	**23.**	0.1
6.	40.5	**15.**	0.01	**24.**	C
7.	B	**16.**	0.1	**25.**	2.5
8.	C	**17.**	A		
9.	2.5	**18.**	20		

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