ALBERTA MATH 20-2 · UNIT 5 · 25 QUESTIONS

Radicals — Practice Test

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 The product $2\sqrt{6} \cdot 3\sqrt{2}$, in simplest form, is

- A $12\sqrt{3}$
- B $6\sqrt{12}$
- C 36
- D $5\sqrt{12}$

Understand It with Pulse | Flag a mistake

2 The simplified form of $\sqrt{48}$ is

- A $4\sqrt{3}$
- B $2\sqrt{12}$
- C $6\sqrt{2}$
- D $3\sqrt{8}$

Understand It with Pulse | Flag a mistake

3 The simplified form of $\sqrt{20} + \sqrt{45}$ is

- A $\sqrt{65}$
- B $6\sqrt{5}$
- C $5\sqrt{5}$
- D $5\sqrt{10}$

Understand It with Pulse | Flag a mistake

4 A radical that is equivalent to $3\sqrt{5}$ is

- A $\sqrt{15}$
- B $\sqrt{30}$
- C $\sqrt{75}$
- D $\sqrt{45}$

Understand It with Pulse | Flag a mistake

5 A rectangle has a length of $\sqrt{48}$ cm and a width of $\sqrt{27}$ cm. Its perimeter, in simplest form, is $a\sqrt{3}$ cm. The value of a is _____ Record your answer as a whole number.

ANSWER _____

Understand It with Pulse | Flag a mistake

6 The product $(3\sqrt{2})(\sqrt{8})$, in simplest form, is

A $3\sqrt{16}$

B 24

C $6\sqrt{2}$

D 12

Understand It with Pulse | Flag a mistake

7 **The radical with a value closest to 8 is**

- A $\sqrt{63}$
- B $\sqrt{50}$
- C $\sqrt{70}$
- D $\sqrt{80}$

Understand It with Pulse | Flag a mistake

8 **The simplified form of $4\sqrt{18} - 2\sqrt{8} + \sqrt{32}$ is**

- A $12\sqrt{2}$
- B $8\sqrt{2}$
- C $20\sqrt{2}$
- D $4\sqrt{2}$

Understand It with Pulse | Flag a mistake

9 A rectangular flower bed has a length of $3\sqrt{8}$ cm and a width of $\sqrt{18}$ cm. The perimeter of the flower bed, in simplest form, is

- **A** $9\sqrt{2}$ cm
- **B** $18\sqrt{2}$ cm
- **C** $12\sqrt{2}$ cm
- **D** $6\sqrt{2}$ cm

Understand It with Pulse | Flag a mistake

10 A rectangular rug measures 6 cm by 3 cm. The length of the diagonal of the rug, to the nearest tenth of a centimetre, is ____ cm

ANSWER _____

Understand It with Pulse | Flag a mistake

11 A square garden has an area of 72 m². The length of one side of the garden, in simplest form, is $a\sqrt{b}$ m. The value of a + b is ____ Record your answer as a whole number.

ANSWER _____

Understand It with Pulse | Flag a mistake

12 A square has an area of 200 cm². Its perimeter, in simplest form, is a $\sqrt{2}$ cm. The value of a is ____ Record your answer as a whole number.

ANSWER _____

Understand It with Pulse | Flag a mistake

13 A square photograph has an area of 162 cm². The length of the diagonal of the photograph, in centimetres, is ____ Record your answer as a whole number.

ANSWER _____

Understand It with Pulse | Flag a mistake

14 The value of $\sqrt{30}$ is between the two whole numbers

A 4 and 5

B 5 and 6

C 6 and 7

D 3 and 4

Understand It with Pulse | Flag a mistake

15 The product $\sqrt{8} \cdot \sqrt{10}$, in simplest form, is

A $\sqrt{80}$

B $2\sqrt{20}$

C $4\sqrt{5}$

D $8\sqrt{2}$

Understand It with Pulse | Flag a mistake

16 The simplified form of $\sqrt{450}$ is

A $5\sqrt{18}$

B $9\sqrt{5}$

C $15\sqrt{2}$

D $25\sqrt{3}$

Understand It with Pulse | Flag a mistake

17 The simplified form of $\sqrt{75} - \sqrt{12}$ is

A $\sqrt{63}$

B $3\sqrt{3}$

C $7\sqrt{3}$

D $2\sqrt{3}$

Understand It with Pulse | Flag a mistake

18 A radical that is equivalent to $7\sqrt{2}$ is

A $\sqrt{28}$

B $\sqrt{98}$

C $\sqrt{49}$

D $\sqrt{14}$

Understand It with Pulse | Flag a mistake

19 A rectangle has a length of $\sqrt{28}$ cm and a width of $\sqrt{63}$ cm. Its perimeter, in simplest form, is $a\sqrt{7}$ cm. The value of a is _____ Record your answer as a whole number.

ANSWER _____

Understand It with Pulse | Flag a mistake

20 The product $(5\sqrt{3})(2\sqrt{3})$, in simplest form, is

A $7\sqrt{6}$

B $10\sqrt{9}$

C 30

D $30\sqrt{3}$

Understand It with Pulse | Flag a mistake

21 The radical with a value closest to 6 is

- A $\sqrt{28}$
- B $\sqrt{30}$
- C $\sqrt{40}$
- D $\sqrt{35}$

Understand It with Pulse | Flag a mistake

22 The simplified form of $5\sqrt{3} - \sqrt{27} + 2\sqrt{12}$ is

- A $4\sqrt{3}$
- B $12\sqrt{3}$
- C $6\sqrt{3}$
- D $2\sqrt{3}$

Understand It with Pulse | Flag a mistake

23 The product $3\sqrt{5} \cdot 2\sqrt{10}$, in simplest form, is

- A $6\sqrt{15}$
- B $30\sqrt{2}$
- C $5\sqrt{50}$
- D 30

Understand It with Pulse | Flag a mistake

24 The simplified form of $\sqrt{32}$ is

- A $8\sqrt{2}$
- B $4\sqrt{2}$
- C $2\sqrt{8}$
- D $\sqrt{30}$

Understand It with Pulse | Flag a mistake

25 The simplified form of $\sqrt{200} - \sqrt{72}$ is

A $\sqrt{128}$

B $16\sqrt{2}$

C $2\sqrt{2}$

D $4\sqrt{2}$

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	A	**10.**	6.7	**19.**	10
2.	A	**11.**	8	**20.**	C
3.	C	**12.**	40	**21.**	D
4.	D	**13.**	18	**22.**	C
5.	14	**14.**	B	**23.**	B
6.	D	**15.**	C	**24.**	B
7.	A	**16.**	C	**25.**	D
8.	A	**17.**	B		
9.	B	**18.**	B		

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