BRITISH COLUMBIA PRE-CALCULUS 11 (MPREC11) · UNIT A · 25 QUESTIONS

Real Numbers, Powers and 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 **Which of the following numbers is irrational?**



A $\sqrt{16}$

B 0.25

C $\sqrt{3}$

D $\frac{3}{7}$

Understand It with Pulse | Flag a mistake

2 **Which of the following numbers is rational?**

A $\sqrt{49}$

B π

C $\sqrt{2}$

D 0.1010010001...

Understand It with Pulse | Flag a mistake

3 **The value of 2^5 is**



A 16

B 32

C 64

D 10

Understand It with Pulse | Flag a mistake

4 **The value of $(-3)^3$ is**

A -27

B 27

C -9

D 9

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5 **The value of 5^0 is**



A 0

B 5

C 1

D -5

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6 **The value of 3^{-2} is**

A -9

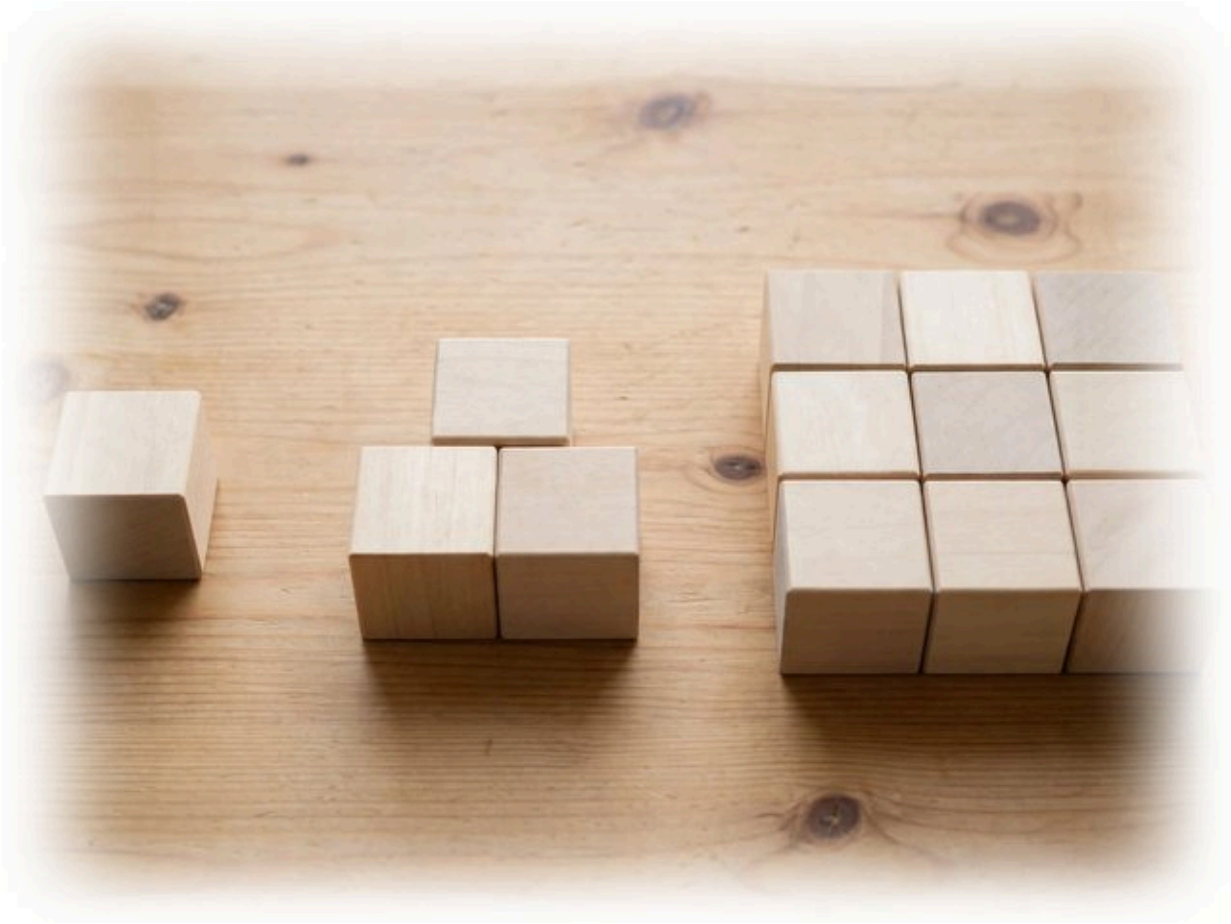
B 9

C $\frac{1}{9}$

D $-\frac{1}{9}$

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7 The product $(2^3)(2^4)$ written as a single power is



A 2^7

B 2^{12}

C 4^7

D 2^1

Understand It with Pulse | Flag a mistake

8 **The power $(5^2)^3$ written as a single power is**

A 5^5

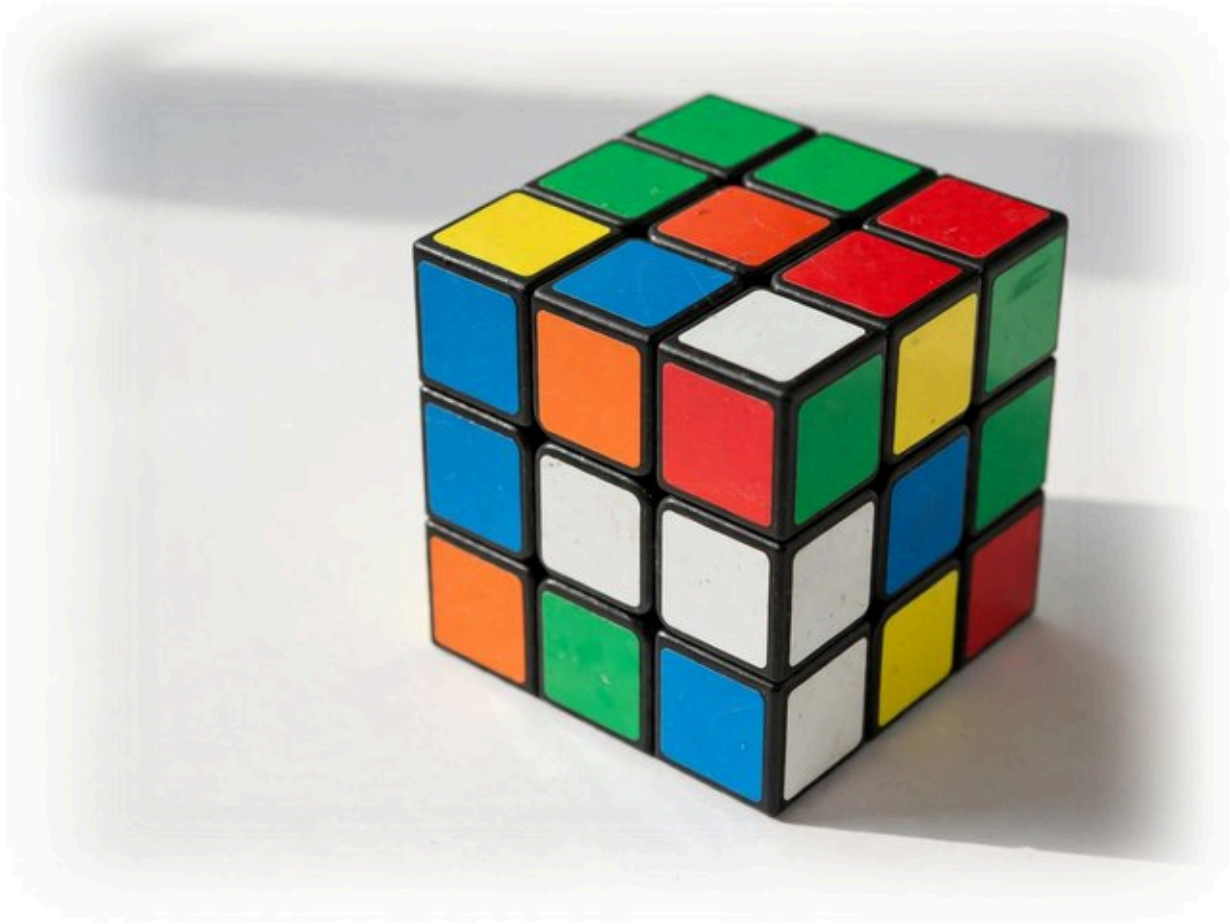
B 5^6

C 5^2

D 5^3

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9 The value of $16^{1/2}$ is



A 8

B 4

C 2

D 32

Understand It with Pulse | Flag a mistake

10 The value of $27^{1/3}$ is

- A 9
- B 3
- C 27
- D 6

Understand It with Pulse | Flag a mistake

11 The value of $8^{2/3}$ is

- A 2
- B 16
- C 4
- D 8

Understand It with Pulse | Flag a mistake

12 The value of $16^{3/4}$ is

- A 4
- B 12
- C 8
- D 64

Understand It with Pulse | Flag a mistake

13 The value of $32^{2/5}$ is

- A 2
- B 8
- C 16
- D 4

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14 The radical $\sqrt{50}$ written in simplest form is



A $2\sqrt{5}$

B $5\sqrt{2}$

C $10\sqrt{5}$

D $25\sqrt{2}$

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15 The radical $\sqrt{72}$ written in simplest form is

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

Understand It with Pulse | Flag a mistake

16 The sum $\sqrt{12} + \sqrt{27}$ in simplest form is

- A $5\sqrt{3}$
- B $2\sqrt{3}$
- C $3\sqrt{3}$
- D $\sqrt{39}$

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17 The difference $\sqrt{50} - \sqrt{8}$ in simplest form is

- A $2\sqrt{2}$
- B $3\sqrt{2}$
- C $4\sqrt{2}$
- D $\sqrt{42}$

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18 The product $\sqrt{3} \cdot \sqrt{12}$ in simplest form is

- A 3
- B 6
- C $\sqrt{15}$
- D 36

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19 The quotient $\frac{\sqrt{20}}{\sqrt{5}}$ in simplest form is

- **A** 4
- **B** 2
- **C** $\sqrt{4}$
- **D** $\sqrt{15}$

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20 The fraction $\frac{1}{\sqrt{3}}$ with a rational denominator is

- **A** $\frac{\sqrt{3}}{3}$
- **B** $\sqrt{3}$
- **C** $\frac{3}{\sqrt{3}}$
- **D** $\frac{1}{3}$

Understand It with Pulse | Flag a mistake

21 The fraction $\frac{5}{\sqrt{2}}$ with a rational denominator is

- **A** $\frac{5\sqrt{2}}{2}$
- **B** $\frac{\sqrt{2}}{5}$
- **C** $5\sqrt{2}$
- **D** $\frac{5}{2}$

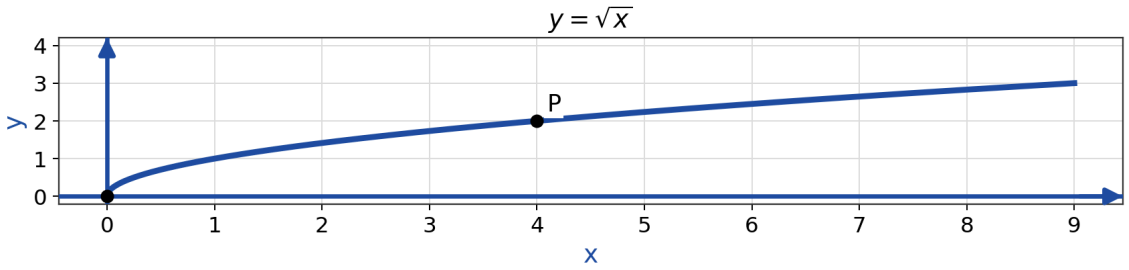
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22 The fraction $\frac{6}{\sqrt{3}}$ with a rational denominator is

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

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23 The graph shows $y = \sqrt{x}$. The value of y when x = 4 is



A 1

B 2

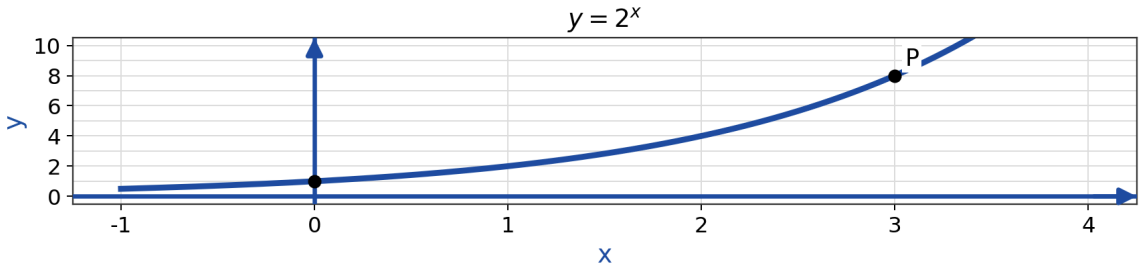
C 4

D 16

Understand It with Pulse

Flag a mistake

24 **The graph shows $y = 2^x$. The value of y when x = 3 is**



A 6

B 4

C 9

D 8

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25 **The value of $64^{2/3}$ is ____.**

ANSWER _____

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ANSWER KEY

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

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