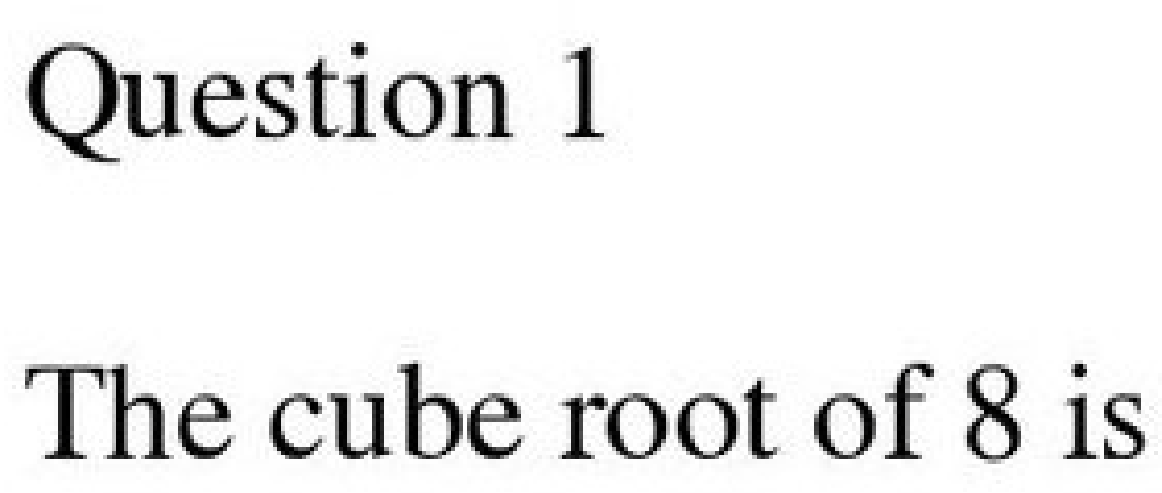
FINAL EXAM - PRACTICE TEST | NEW BRUNSWICK NUMBER, RELATIONS AND FUNCTIONS 10 · FINAL EXAM · 50 QUESTIONS

Final Exam, Practice final exam (50 questions) — 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 positive square root of 16 is**



ANSWER

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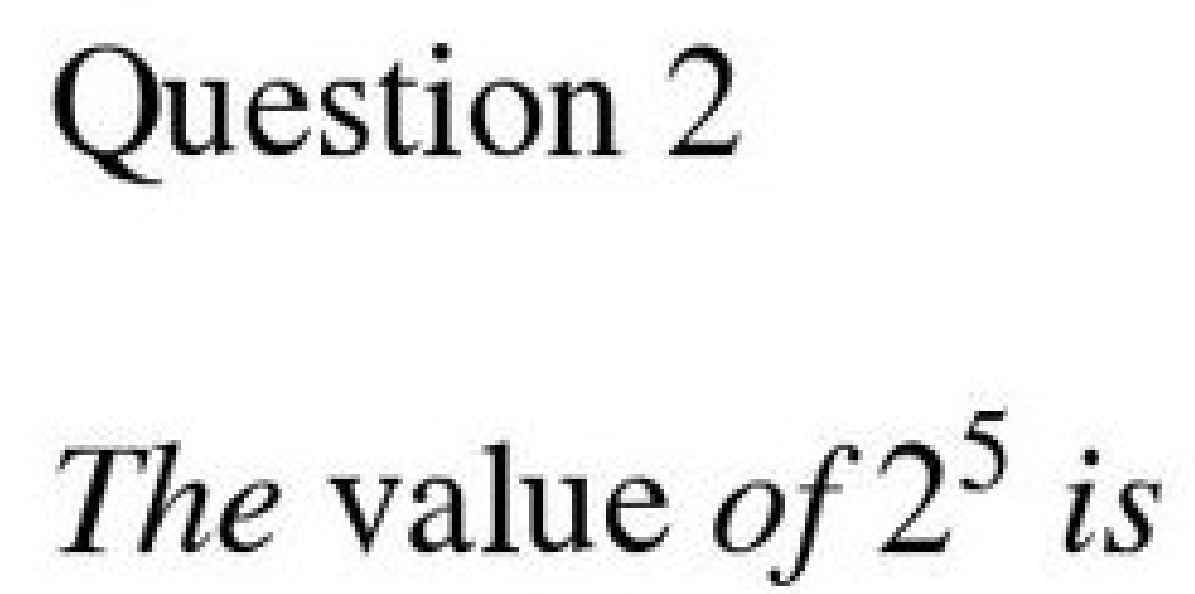
2 **The value of 2 to the power 5 is**



ANSWER

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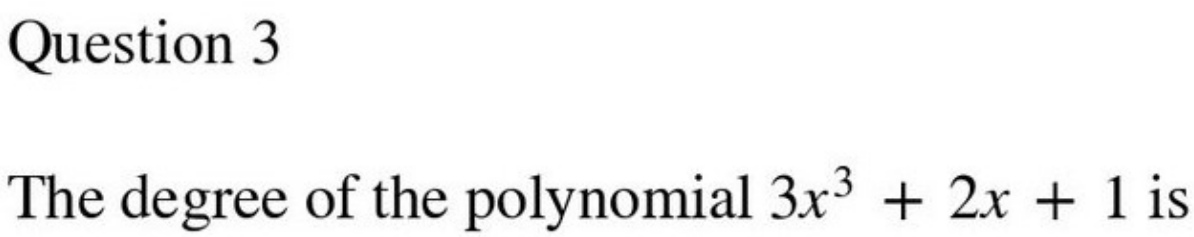
3 **For the polynomial 1 x squared plus 5 x plus 2 the value when x equals 2 is**



ANSWER

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4

For the linear relation y equals 1 x plus 5 the value of y when x equals 6 is

Question 4

If $f(x) = 2x + 1$ then $f(5)$ *is*

A) 11

B) 10

C) 7

D) 12

ANSWER

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5

The slope of the line through 1 comma 2 and 4 comma 11 is

Question 5

The distance between 0 comma 0 and 3 comma 4 is

ANSWER

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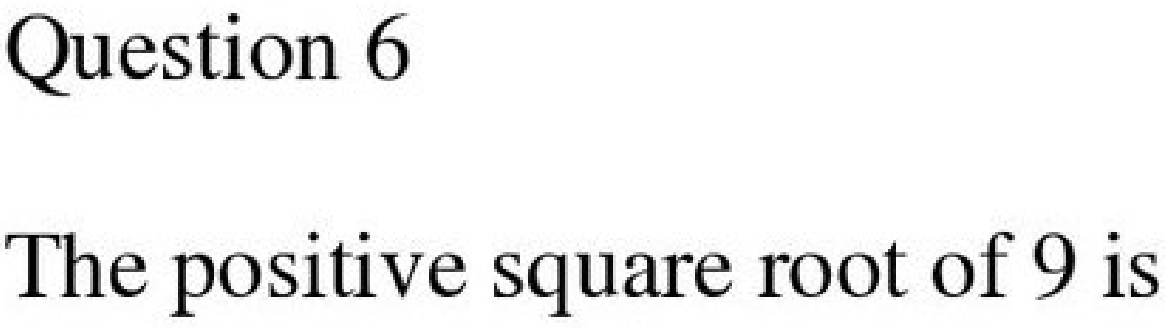
6 **The positive square root of 64 is**



ANSWER

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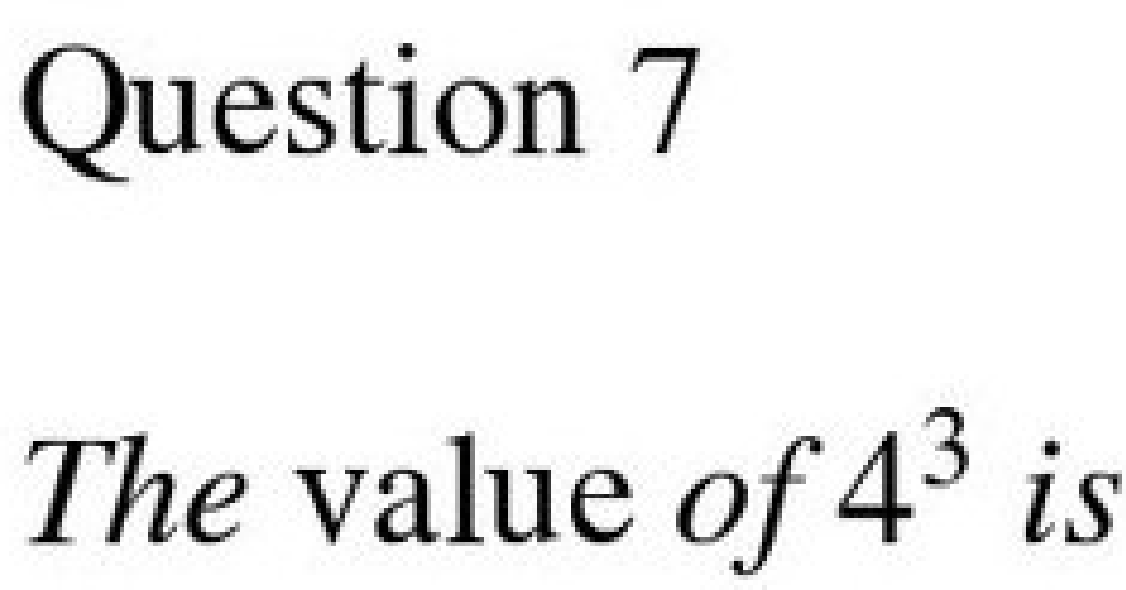
7 **The value of 4 to the power 3 is**



ANSWER

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8 The degree of the polynomial 5 x squared plus x is

Question 8

A polynomial is in simplest form when like terms are

A) deleted

B) squared

C) factored only

D) combined

ANSWER

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9 For the linear relation y equals 3 x plus 1 the value of x when y equals 13 is

Question 9

A discrete graph shows points that are

A) connected by a line

B) always curved

C) separate

D) always circles

ANSWER

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10 **The distance between 0 comma 0 and 6 comma 8 is**

Question 10

The midpoint of 2 comma 4 and 6 comma 10 is written as 4 comma 7. The y coordinate of the midpoint is

ANSWER

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11 **The positive square root of 144 is**

Question 11

The positive square root of 16 is

ANSWER

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12 **The value of 2 to the power negative 1 as a decimal is**

Question 12

The value *of* 2^{-1} *as a* decimal *is*

ANSWER

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13 **Expanding 2 times the quantity x minus 5 gives a constant term of**

Question 13

Expanding 4 times the quantity x plus 3 gives a constant term of

ANSWER

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14 In the relation y equals 2 x plus 3 the slope is

Question 14

A linear relation has a graph that is a

A) straight line

B) curve

C) circle

D) parabola only

A 2

B 3

C 5

D 6

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15 **The midpoint of 0 comma 6 and 8 comma 2 is written as 4 comma 4. The x coordinate of the midpoint is**

Question 15

The midpoint formula averages the x coordinates and the

A) slopes

B) intercepts

C) y coordinates

D) distances

ANSWER

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16 **The cube root of 125 is**

Question 16

The positive square root of 25 is

ANSWER

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17 **The value of 16 to the power 1 half is**

Question 17

The value *of* $16^{\frac{1}{2}}$ *is*

ANSWER

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18 Factoring x squared minus 9 gives

Question 18

The first step in factoring a polynomial is to look for a

A) square root

B) prime number

C) fraction

D) common factor

A x minus 9 times x plus 1

B x plus 9 times x minus 1

C x minus 3 times x plus 3

D x plus 3 times x plus 3

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19 The range of a relation is the set of

Question 19

In function notation $f(3)$ means *the* output when *the* input *is*

A) f

B) 0

C) 3

D) the slope

- A output values
- B input values
- C slopes
- D intercepts

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20 Solve the system x plus y equals 12 and x minus y equals 4. The value of y is

Question 20

Solve the system $x + y = 12$ and $x - y = 4$. The value of y is

ANSWER _____

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21 **The least common multiple of 6 and 8 is**

Question 21

The greatest common factor of 60 and 45 is

ANSWER

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22 **The value of 4 to the power 1 half times 4 to the power 1 half is**

Question 22

The value *of* $4^{\frac{1}{2}} \times 4^{\frac{1}{2}}$ *is*

ANSWER

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23 **Expanding x plus 2 times x plus 3 gives x squared plus 5 x plus**

Question 23

The degree of the polynomial $5x^2 + x$ is

A 5

B 2

C 6

D 3

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24

The slope of a vertical line is

Question 24

If $f(x) = 3x - 2$ then $f(4)$ *is*

A) 12

B) 10

C) 9

D) 14

A undefined

B 0

C 1

D negative 1

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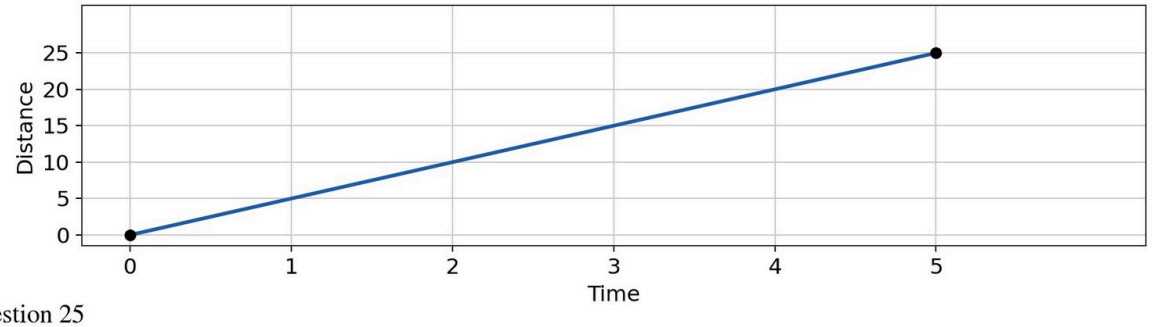
25

Solve the system x plus y equals 20 and x minus y equals 4. The value of y is



Question 25

The graph shows distance against time through 0 comma 0 and 5 comma 25. The speed in units per time is

ANSWER

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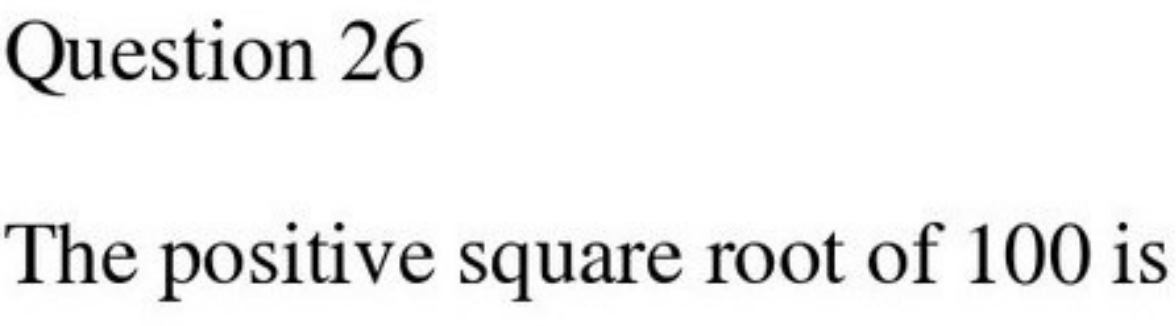
26 **A perfect square is a number that is the square of an**



A fraction only

B decimal only

C integer

D negative number only

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27 When dividing powers with the same base the exponents are

Question 27

When dividing powers with the same base the exponents are

A) added

B) multiplied

C) doubled

D) subtracted

A added

B multiplied

C doubled

D subtracted

Understand It with Pulse

Flag a mistake

28 The term monomial means a polynomial with

Question 28

Factoring $x^2 + 9x + 20$ gives

A) x plus 4 times x plus 5

B) x plus 2 times x plus 10

C) x plus 1 times x plus 20

D) x minus 4 times x minus 5

- A one term
- B two terms
- C three terms
- D no terms

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29 **The x intercept of a graph is where the graph crosses the**

Question 29

For the linear relation $y = 1x + 5$ the value of y when $x = 6$ is

A x axis

B y axis

C origin only

D vertex

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30 **The midpoint formula averages the x coordinates and the**

Question 30

The distance between 1 comma 2 and 4 comma 6 is

A slopes

B intercepts

C y coordinates

D distances

Understand It with Pulse | Flag a mistake

31 **The positive square root of 196 is**

Question 31

The prime factors of 30 are 2 times 3 times 5. The number of distinct prime factors is

ANSWER

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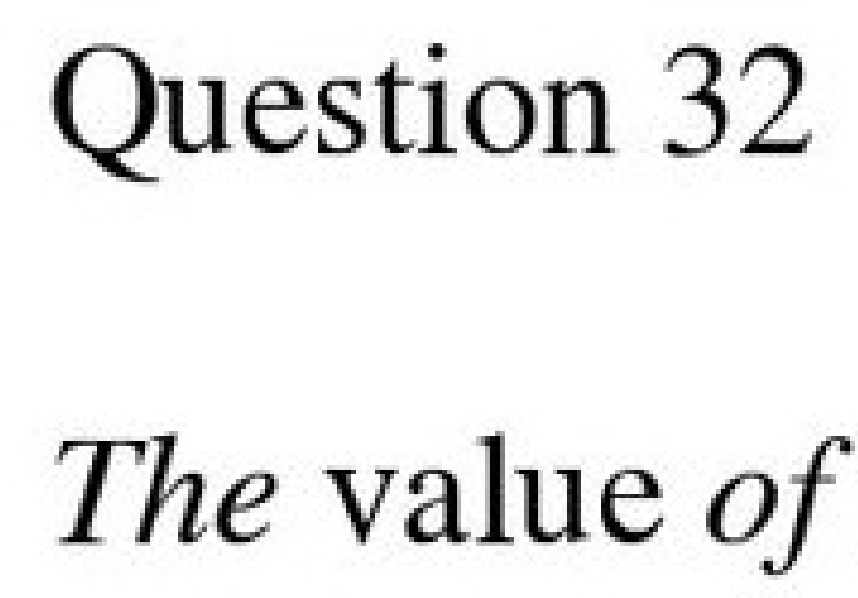
32 **The value of 3 to the power 2 is**



ANSWER

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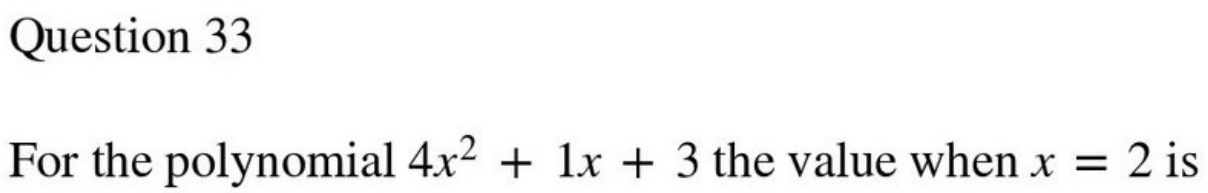
33 **For the polynomial x squared plus 4 x plus 4 the value when x equals 2 is**



ANSWER

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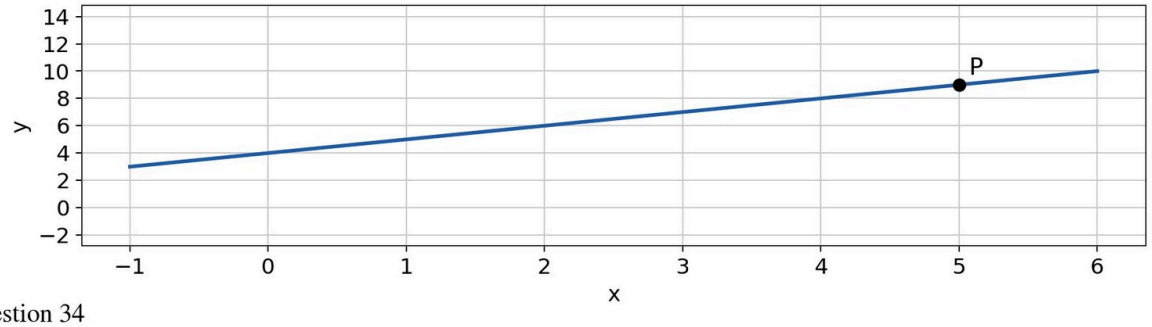
34 **For the linear relation y equals 2 x plus 4 the value of y when x equals 5 is**



Question 34

The graph of $y = x + 4$ passes through the point with $x = 5$. The y value is

ANSWER

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35 **The slope of the line through 1 comma 1 and 4 comma 13 is**

Question 35

The slope of the line through 0 comma 0 and 4 comma 12 is

ANSWER

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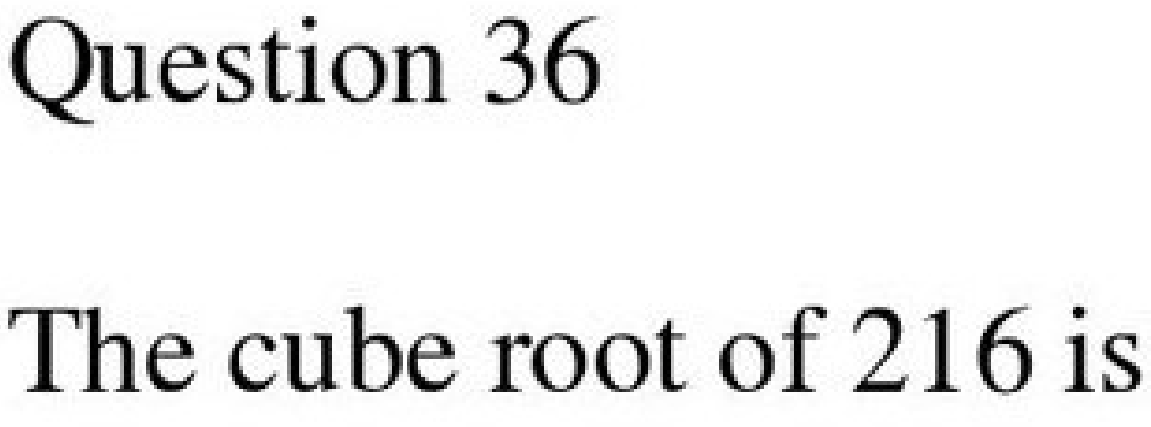
36 **The cube root of 216 is**



ANSWER

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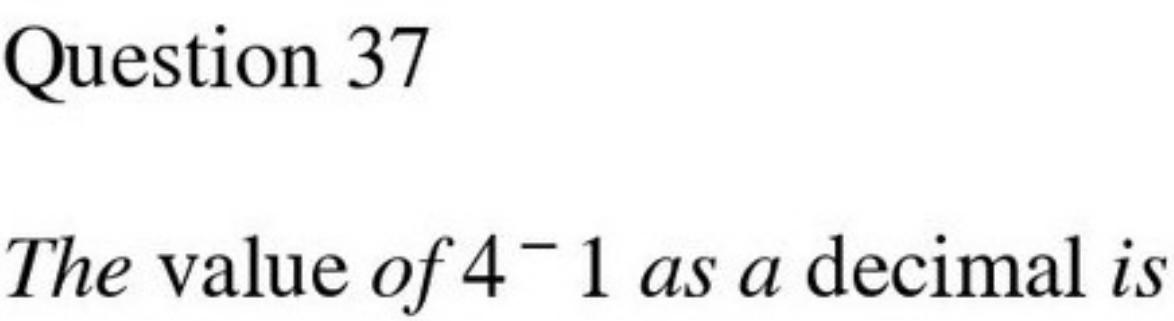
37 **The value of 4 to the power negative 1 as a decimal is**



ANSWER

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38 **The product of x plus 7 and x plus 3 has x coefficient**

Question 38

For the polynomial $2x^2 + 3x + 1$ the value when $x = 3$ is

ANSWER

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39 **In the relation y equals 4 x minus 1 the y intercept is**

Question 39

For the linear relation $y = 3x + 2$ the value of y when $x = 4$ is

A 4

B negative 1

C 3

D 5

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40 **The midpoint of 2 comma 2 and 8 comma 8 is written as 5 comma 5. The y coordinate of the midpoint is**

Question 40

The slope of the line through 0 comma 0 and 3 comma 9 is

ANSWER

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41 **The greatest common factor of 60 and 45 is**

Question 41

Factorisation breaks a number into factors that are

A) prime

B) even only

C) odd only

D) squares only

ANSWER

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42 **The value of 5 to the power 2 times 5 to the power 3 is**

Question 42

The value *of* $5^2 \times 5^3$ *is*

ANSWER

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43 A common factor of 8 x squared and 12 x is

Question 43

The term binomial means a polynomial with

A) one term

B) two terms

C) three terms

D) four terms

A 8 x

B 12 x

C 24 x

D 4 x

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44 A line with a positive slope rises from left to

Question 44

The slope of a vertical line is

A) undefined

B) 0

C) 1

D) negative 1

- A left
- B right
- C down only
- D nowhere

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45 The graph shows distance against time through 0 comma 0 and 5 comma 25. The speed in units per time is

Question 45

Solve the system $x + y = 14$ and $x - y = 6$. The value of x is

ANSWER _____

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46 **The square root of 50 lies between which two integers**

Question 46

The cube root of 512 is

A 7 and 8

B 5 and 6

C 8 and 9

D 6 and 7

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47 A rational exponent with denominator 3 represents a

Question 47

A rational exponent with denominator 3 represents a

A) square root

B) cube root

C) square

D) reciprocal

A square root

B cube root

C square

D reciprocal

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48 **The first step in factoring a polynomial is to look for a**

Question 48

The product of x plus 6 and x plus 2 has constant term

A square root

B prime number

C fraction

D common factor

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49 **If f of x equals 3 x minus 2 then f of 4 is**

Question 49

For the linear relation $y = 2x + 4$ the value of y when $x = 5$ is

A 12

B 10

C 9

D 14

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50 **Elimination solves a system by adding or subtracting equations to remove a**

Question 50

The slope of the line through 1 comma 1 and 4 comma 13 is

A constant only

B graph

C slope only

D variable

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ANSWER KEY

1.	4	**18.**	C	**35.**	4
2.	32	**19.**	A	**36.**	6
3.	16	**20.**	4	**37.**	0.25
4.	11	**21.**	24	**38.**	10
5.	3	**22.**	4	**39.**	B
6.	8	**23.**	C	**40.**	5
7.	64	**24.**	A	**41.**	15
8.	2	**25.**	8	**42.**	3125
9.	4	**26.**	C	**43.**	D
10.	10	**27.**	D	**44.**	B
11.	12	**28.**	A	**45.**	5
12.	0.5	**29.**	A	**46.**	A
13.	-10	**30.**	C	**47.**	B
14.	A	**31.**	14	**48.**	D
15.	4	**32.**	9	**49.**	B
16.	5	**33.**	16	**50.**	D
17.	4	**34.**	14		

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