FRACTION ALLEY ALGEBRA BLOCK

.125	What do we call a symbol that represents a number or value that can change and is unlikely to remain constant?	variable
.25	What is the value of the coefficient in the expression $12x^2y$?	12
.375	What is the sum of the exponents on the variables in the expression $4x^3y$?	4
.5	How many terms are in the equation $2x + 11 - x = 5x + 4$?	5
.625	What is the range of values represented by the inequality $-2 \le x \le 12$?	14
.750	Find the sum of the absolute values of the integers between 0 and –5.	10
.875	True or False: Zero is not an irrational number.	True
1	True or False: Zero is not an integer.	False
1.125	True or False: Irrational numbers are not considered Real numbers.	False
1.25	True or False: Since the set of integers is infinite, the set of whole numbers is finite.	False
1.375	True or False: The sum of two odd numbers is always even.	True
1.5	True or False: The product of two odd numbers is always odd.	True
1.625	True or False: $\sqrt{2}$ is a rational number.	False
1.750	True or False: Every whole number and every integer is a rational number.	True
1.875	True or False: Every rational number can be written as a terminating or repeating decimal.	True
2	Find the fraction equivalent of .55555... repeating.	5/9
2.125	True or False: The fraction 7/8 can be written as a terminating decimal.	True
2.25	True or False: The fraction 5/6 can be written as a terminating decimal.	False
2.375	True or False: The number .99999... repeating is equivalent to 1.	True
2.5	What is the sum of the exponents on the variables in the expression $-6rs^2t$?	4
2.625	Find the sum of the first five whole numbers.	10
2.750	What set includes all numbers that can be written as a ratio of integers?	Rational Numbers
2.875	What set includes all the whole numbers and their opposites?	Integers
3	What set is the union of the even whole numbers and the odd whole numbers?	Whole Numbers
3.125	What property name is associated with $a + b = b + a$?	Commutative
3.25	What property name is associated with $a(b + c) = ab + ac$?	Distributive
3.375	What property name is associated with $(a + b) + c = a + (b + c)$?	Associative
3.5	What property guarantees that the sum of two real numbers is a real number?	Closure
3.625	What property name is associated with $a + (-a) = 0$?	Inverse of Addition
3.750	What property name is associated with $a + 0 = a$?	Identity of Addition
3.875	What property name is associated with $a \cdot (1/a) = 1$?	Inverse of Mult.
4	What property name is associated with $a \cdot 1 = a$?	Identify of Mult.
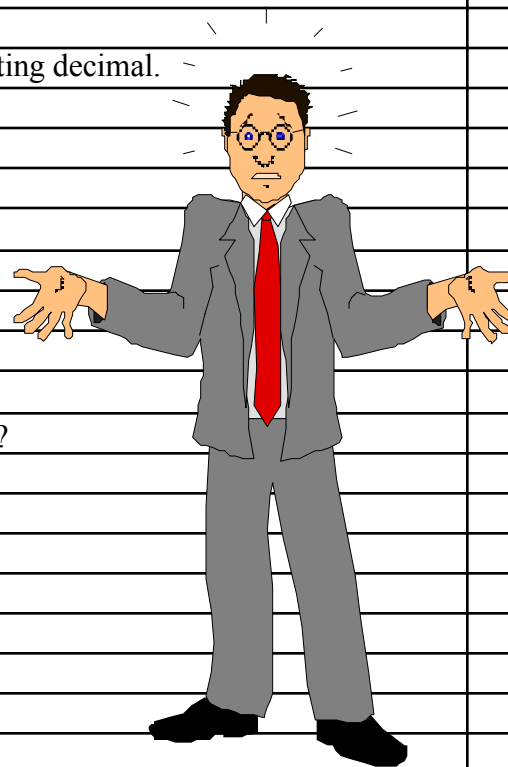
4.125	Evaluate $2a + b$ if a= 5 and b= –8.	2
4.25	Evaluate $x^2 + x$ if x= – 1/2.	–1/4
4.375	Evaluate $– 2x^2 + 1$ if x= –2.	–7
4.5	Evaluate $m + n$ if m= 6 and n equals half of m.	9
4.625	What is the average of the first five counting numbers?	3
4.750	Solve $5x + 10 = 50$ for x.	x= 8
4.875	True or False: is not a real number.	False
5	True or False: $0/0 = 1$.	False
5.125	Solve $(1/2)x + 1 = 26$ for x	x= 50
5.25	True or False: x= 9 is part of the solution of $x – 10 > – 1$.	False
5.375	Evaluate a/b where a= 95 and b= 5. Simplify your answer.	19
5.5	What is the name of a polynomial with exactly two terms?	binomial
5.625	What is the name of a polynomial with exactly three terms?	trinomial
5.750	Find the sum of 4x, 5xy, and 6x.	10x + 5xy
5.875	True or False: .25252525.... is a rational number.	True
6	Find the fraction equivalent of .7777... repeating.	7/9
6.125	True or False: The fraction 10/15 can be written as a terminating decimal.	False
6.25	True or False: The fraction x/y equals zero when y equals zero.	False
6.375	Find the greatest proper factor of 40.	20
6.5	Find the product of $(1/2)x^2$ and $2x^2$.	x^4
6.625	Find the additive inverse of the binomial 4x – 6.	–4x + 6
6.750	Find the greatest common factor of 12xy and 8yz.	4y
6.875	Find the least common multiple of 16 and 32.	32
7	Find the sum of the whole number factors of 16.	31
7.125	What property name is associated with $a + b = b + a$?	Commutative
7.25	What property name is associated with $a(b + c) = ab + ac$?	Distributive
7.375	What property name is associated with $(a + b) + c = a + (b + c)$?	Associative
7.5	What property guarantees that the sum of two whole numbers is a whole number?	Closure
7.625	What property name is associated with $a + (–a) = 0$?	Inverse of Addition
7.750	What property name is associated with $a + 0 = a$?	Identity of Addition
7.875	What property name is associated with $a • (1/a) = 1$?	Inverse of Mult.
8	What property name is associated with $a • 1 = a$?	Identify of Mult.
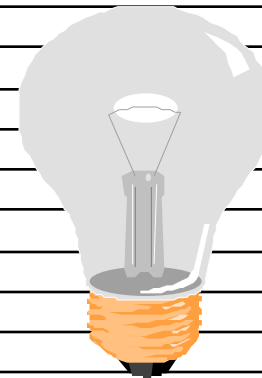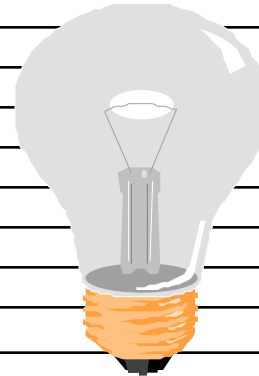
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8.125	Name the prime numbers between 10 and 20.	11, 13, 17, 19
8.25	Find the product of $2x^3$ and $5x^3$	$10x^6$
8.375	Find the product of $(3/4)x^8$ and $20x^{-6}$.	$15x^2$
8.5	What prime number has the least value?	2
8.625	What is the average of the first four prime numbers?	4.25
8.750	Solve $11x + 8 = 30$ for x.	x= 2
8.875	True or False: 8/2 is not an integer.	False
9	True or False: 0/1 is undefined.	False
9.125	Find the sum of $6x + 1$ and $1 - 6x$.	2
9.25	True or False: Any number, 0, raised to the zero power is 1 .	True
9.375	Evaluate $a - b$ where a= 6 and b= .02.	5.98
9.5	What is the square of 12?	144
9.625	What is the square of 15?	225
9.750	What is the square of 17?	289
9.875	True or False: $\sqrt{81}$ is an irrational number.	False
10	Write 80% as a fraction written in lowest terms.	4/5
10.125	True or False: The fraction 1/5 can be written as a terminating decimal.	True
10.25	If $f(x) = 4x - 5$ then $f(8) = ?$	27
10.375	Find the sum of the whole number factors of 20.	42
10.5	Find the quotient of $20x^5y^4$ and $2x^2y$.	$10x^3y^3$
10.625	If $f(x) = -2x + 11$ then $f(-11)= ?$	33
10.750	Find the greatest common factor of 60xy and 45xy.	15xy
10.875	Find the least common multiple of 3x and 5y.	15xy
11	Find the sum of the whole number factors of 42.	96
11.125	What property name is associated with $a + b = b + a$?	Commutative
11.25	What property name is associated with $a(b + c) = ab + ac$?	Distributive
11.375	What property name is associated with $(a + b) + c = a + (b + c)$?	Associative
11.5	What property guarantees that the sum of two rational numbers is a rational number?	Closure
11.625	What property name is associated with $a + (-a) = 0$?	Inverse of Addition
11.750	What property name is associated with $a + 0 = a$?	Identity of Addition
11.875	What property name is associated with $a \cdot (1/a) = 1$?	Inverse of Mult.
12	What property name is associated with $a \cdot 1 = a$?	Identify of Mult.

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12.125	Find the slope of the line that contains the points (6,7) and (−1,7).	0
12.25	Expand $(x + 4)^2$.	$x^2 + 8x + 16$
12.375	Factor $x^2 + 10x + 24$.	$(x + 6)(x + 4)$
12.5	Name the prime numbers between 50 and 60.	53 and 59
12.625	What is the average of the first five positive multiples of 5?	15
12.750	Solve −10x − 18 = 20 for x.	x= −3.8
12.875	True or False: The graph of y=4 is a vertical line.	False
13	True or False: The graph of x=4 is a vertical line.	True
13.125	Find the slope of the line that contains the points (2,2) and (4,8).	3
13.25	Find the y intercept of the graph of y = 5x + 4.	4
13.375	Evaluate 6a − 2b where a= 5 and b= 1/2.	29
13.5	What is the square of 13?	169
13.625	What is the square of 14?	196
13.750	What is the square of 18?	324
13.875	True or False: $\sqrt{20}$ is an irrational number.	True
14	Write 60% as a fraction written in lowest terms.	3/5
14.125	True or False: The fraction 10/7 can be written as a terminating decimal.	False
14.25	If f(x) = 5x − 10 then f(1) = ?	−5
14.375	Find the sum of the whole number factors of 18.	39
14.5	Find the quotient of $100x^2y^3$ and $50x^2y$.	$2y^2$
14.625	If f(x) = −6x + 7 then f(2)= ?	−5
14.750	What do we call a polynomial with three terms?	trinomial
14.875	The rational and irrational numbers combine to form what set of numbers?	Real
15	Find the slope of the graph of 2x + 2y = 12.	−1
15.125	What property name is associated with a + b = b + a?	Commutative
15.25	What property name is associated with a(b + c) = ab + ac?	Distributive
15.375	What property name is associated with (a + b) + c = a + (b + c)?	Associative
15.5	What property guarantees that the sum of two whole numbers is a whole number?	Closure
15.625	What property name is associated with a + (−a) = 0?	Inverse of Addition
15.750	What property name is associated with a + 0 = a?	Identity of Addition
15.875	What property name is associated with a • (1/a) = 1?	Inverse of Mult.
16	What property name is associated with a • 1 = a?	Identify of Mult.

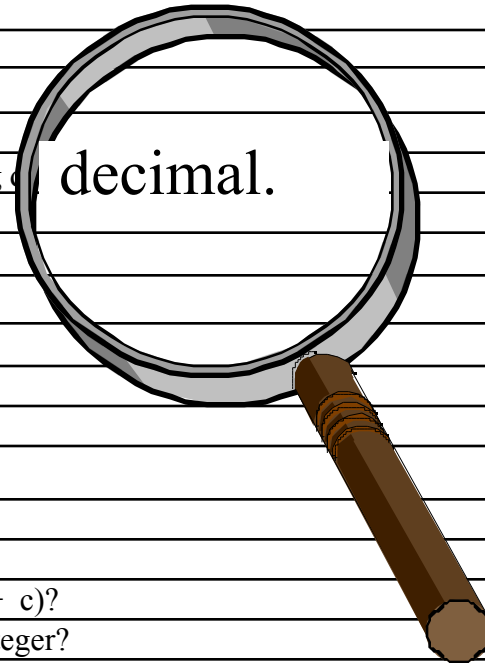|		
16.125	Find the slope of the line that contains the points (–2,0) and (4,6).	1
16.25	Factor $x^2 + 12x + 35$.	$(x + 7)(x + 5)$
16.375	Factor $x^2 + 9x + 20$.	$(x + 5)(x + 4)$
16.5	Name the prime numbers between 40 and 50.	41, 43 and 47
16.625	What is the average of the factors of 20?	7
16.750	Simplify $\sqrt{20}$.	$2\sqrt{5}$
16.875	What is five less than the square of 2?	–1
17	True or False: The graph of y=9 is a vertical line.	False
17.125	Find the slope of the line that contains the points (0,0) and (2,3).	1.5
17.25	Find the y intercept of the graph of 5x +2y = 12.	6
17.375	What is twice the sum of 12 and half of 12?	36
17.5	What is the square of 12?	144
17.625	What is the square of 11?	121
17.750	What is the square of 13?	169
17.875	Simplify $2\sqrt{5} + \sqrt{20}$	$4\sqrt{5}$
18	Write 75% as a fraction written in lowest terms.	3/4
18.125	True or False: can be written as a terminating decimal.	False
18.25	If f(x) = 10x – 10 then f(9) = ?	80
18.375	Find the y-intercept of the graph of y= 6 + 9x.	6
18.5	Divide 4 by 1/2.	8
18.625	If f(x) = –6x + 7 then f(2)= ?	–5
18.750	What do we call a polynomial with three terms?	trinomial
18.875	The rational and irrational numbers combine to form what set of numbers?	Real
19	Find the slope of the graph of y= –x + 8 .	–1
19.125	What property name is associated with a + b = b + a?	Commutative
19.25	What property name is associated with a(b + c) = ab + ac?	Distributive
19.375	What property name is associated with (a + b) + c = a + (b + c)?	Associative
19.5	What property guarantees that the sum of two integers is an integer?	Closure
19.625	What property name is associated with a + (–a) = 0?	Inverse of Addition
19.750	What property name is associated with a + 0 = a?	Identity of Addition
19.875	What property name is associated with a • (1/a) = 1?	Inverse of Mult.
20	What property name is associated with a • 1 = a?	Identify of Mult.
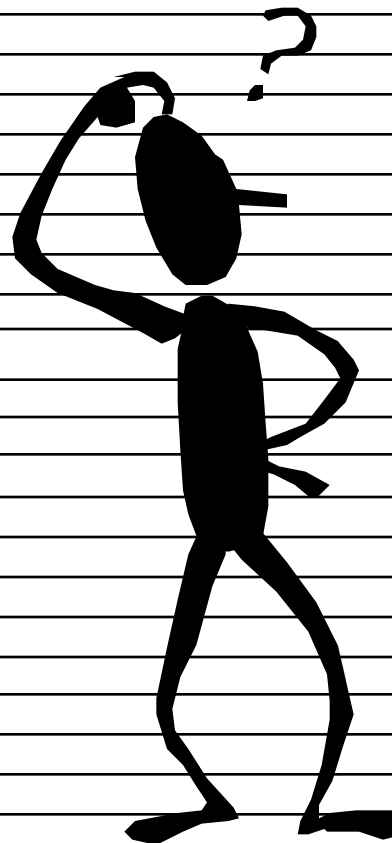
FRACTION ALLEY
ALGEBRA BLOCK

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20.125	Evaluate $5x + 2y$ if $x = 4$ and $y = -1/2$.	19
20.25	Evaluate $x^2 + 2x$ if $x = -1/3$.	$-5/9$
20.375	Evaluate $-3x^2 + 6$ if $x = -4$.	-42
20.5	Evaluate $2m + n$ if $m = 5$ and n equals half of m.	12.5
20.625	What is the average of the first seven counting numbers?	4
20.750	Solve $7x + 11 = 39$ for x.	$x = 4$
20.875	True or False: In a right triangle, the sum of the squares of the legs equals the square of the hypotenuse.	True
21	True or False: Division by zero is undefined in mathematics.	True
21.125	Solve $(3/4)x + 1 = 76$ for x	$x = 100$
21.25	True or False: $x = 2$ is part of the solution of $2x - 1 > 6$.	False
21.375	Evaluate $a/(b+2)$ where $a = 6$ and $b = 1$. Simplify your answer.	2
21.5	What is the name of a polynomial with exactly two terms?	binomial
21.625	What is the name of a polynomial with exactly three terms?	trinomial
21.750	Find the sum of $2x + 4$ and $6x - 4$.	$8x$
21.875	True or False: The phrase 'twenty two and one-half percent' is representative of a rational number.	True
22	Find the fraction equivalent of .2222... repeating.	2/9
22.125	True or False: The fraction 7/8 can be written as a terminating decimal.	True
22.25	True or False: The fraction x/y equals two when y equals half of x	True
22.375	Find the greatest proper factor of 100.	50
22.5	Find the product of $4t^2$ and $5t^5$.	$20t^7$
22.625	Find the additive inverse of the binomial $ax - y$.	$-ax + y$
22.750	Find the greatest common factor of $12abc$ and $20ab$.	$4ab$
22.875	Find the least common multiple of $12xy$ and $20xy$.	$60xy$
23	Find the sum of the whole number factors of 29.	30
23.125	What property name is associated with $a + b = b + a$?	Commutative
23.25	What property name is associated with $a(b + c) = ab + ac$?	Distributive
23.375	What property name is associated with $(a + b) + c = a + (b + c)$?	Associative
23.5	What property guarantees that the sum of two rational numbers is a rational number?	Closure
23.625	What property name is associated with $a + (-a) = 0$?	Inverse of Addition
23.750	What property name is associated with $a + 0 = a$?	Identity of Addition
23.875	What property name is associated with $a \cdot (1/a) = 1$?	Inverse of Mult.
24	What property name is associated with $a \cdot 1 = a$?	Identify of Mult.
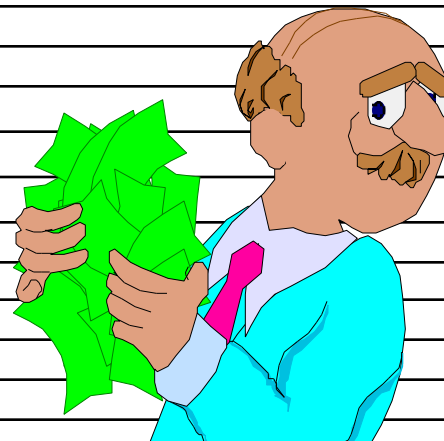
24.125	What do we call a symbol that represents a number or value that can change and is unlikely to remain constant?	variable
24.25	What is the sum of the values of the coefficients in the expression $14x^2y + 6xy$?	20
24.375	What is the sum of the exponents on the variables in the expression $2xy + 5x^2y$?	5
24.5	How many terms are in the equation $5x + 11 - 2x = 7x + 4$?	5
24.625	What is the range of values represented by the inequality $-15 \leq x \leq -1$?	14
24.750	True or False: The quotient of two even whole numbers is always an even whole number.	False
24.875	True or False: In a right triangle, the sum of the squares of the legs equals the square of the hypotenuse.	True
25	True or False: An integer and a fraction cannot represent the same number.	False
25.125	Solve the system $x + y = 15$ and $x = 2y$ for x and y.	x=10, y=5
25.25	True or False: $x = -3$ is part of the solution of $2x + 1 < 0$.	True
25.375	Evaluate $2a/(b+1)$ where a= 5 and b= 1. Simplify your answer.	5
25.5	What can be used to keep a sandwich fresh and to multiply binomials?	FOIL
25.625	What is the name of a polynomial with exactly three terms?	trinomial
25.750	Solve the system $x + 2y = 20$ and $y = 2x$ for x and y.	x= 4, y= 8
25.875	$2\sqrt{5} + 8\sqrt{5}$ = ?	$10\sqrt{5}$
26	Find the fraction equivalent of .4444... repeating.	4/9
26.125	True or False: The fraction 1/16 can be written as a terminating decimal.	True
26.25	True or False: The fraction x/y is greater than 1 when x > y.	True
26.375	Solve the system $2x + y = 10$ and $x - y = -1$ for x and y.	x=3, y=4
26.5	Find the product of $5p^6$ and $5p^{-6}$.	25
26.625	Find the additive inverse of the binomial $2x^2 + x - 1$.	$-2x^2 - x + 1$
26.750	Find the slope of the line represented by $y = 3x + 9$.	3
26.875	The graph of $y = 12x - 9$ is what plane figure?	line
27	The graph of $y = 2x^2 + 4x$ is what plane figure?	parabola
27.125	What property name is associated with $a + b = b + a$?	Commutative
27.25	What property name is associated with $a(b + c) = ab + ac$?	Distributive
27.375	What property name is associated with $(a + b) + c = a + (b + c)$?	Associative
27.5	What property guarantees that the sum of two integers is an integer?	Closure
27.625	What property name is associated with $a + (-a) = 0$?	Inverse of Addition
27.750	What property name is associated with $a + 0 = a$?	Identity of Addition
27.875	What property name is associated with $a \cdot (1/a) = 1$?	Inverse of Mult.
28	What property name is associated with $a \cdot 1 = a$?	Identify of Mult.

28.125	Find the slope of the line that contains the points (0,0) and (15,15).		1
28.25	Factor $x^2 + 6x + 5$.		$(x + 1)(x + 5)$
28.375	Factor $x^2 + 12x + 20$.		$(x + 10)(x + 2)$
28.5	Name the prime numbers between 60 and 70.		61 and 67
28.625	What is the average of the whole number factors of 18?		6.5
28.750	Simplify $\sqrt{200}$.		$10\sqrt{2}$
28.875	What is seven more than the square of 8?		71
29	True or False: The graph of y=x is a vertical line.		False
29.125	Find the slope of the line that contains the points (0,0) and (9,3).		1/3
29.25	Find the y intercept of the graph of x + y + 1 = 0.		–1
29.375	What is twice the sum of 15 and the next consecutive number?		62
29.5	What is the square of 19?		361
29.625	What is the square of 18?		324
29.750	What is the square of 13?		169
29.875	Simplify $2\sqrt{5} + \sqrt{45}$		$5\sqrt{5}$
30	Write 60% as a fraction written in lowest terms.		3/5
30.125	True or False: can be written as a fraction.		False
30.25	If f(x) = 12x – 11 then f(3) = ?		25
30.375	Find the y-intercept of the graph of y= 5.		5
30.5	Divide 6 by 1/2.		12
30.625	If f(x) = –x – 7 then f(2)= ?		–9
30.750	What do we call a polynomial with three terms?		trinomial
30.875	The rational and irrational numbers combine to form what set of numbers?		Real
31	Find the slope of the graph of y= –4x + 8 .		–4
31.125	What property name is associated with a + b = b + a?		Commutative
31.25	What property name is associated with a(b + c) = ab + ac?		Distributive
31.375	What property name is associated with (a + b) + c = a + (b + c)?		Associative
31.5	What property guarantees that the product of two integers is an integer?		Closure
31.625	What property name is associated with a + (–a) = 0?		Inverse of Addition
31.750	What property name is associated with a + 0 = a?		Identity of Addition
31.875	What property name is associated with a • (1/a) = 1?		Inverse of Mult.
32	What property name is associated with a • 1 = a?		Identify of Mult.
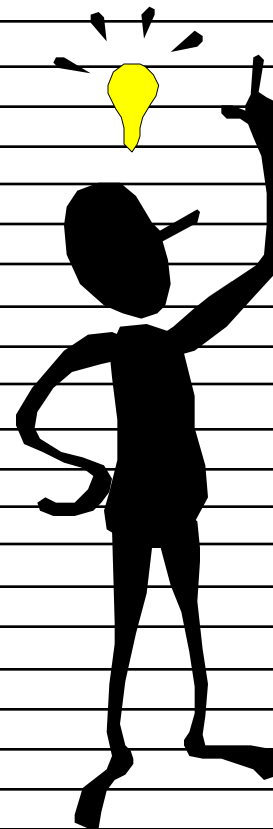
32.125	Evaluate $2(x + y)$ if $x = 2$ and $y = -1/2$.	3
32.25	Evaluate $x^2 + 2x$ if $x = -1/2$.	$-3/4$
32.375	Evaluate $-3x^2 + 6$ if $x = 5$.	-69
32.5	Evaluate $2m + n$ if $m = 5$ and n is the next consecutive number.	16
32.625	What is the average of the proper factors of 21? Round your answer to the nearest whole number.	4
32.750	Solve $2x + 20 = 68$ for x.	$x = 24$
32.875	True or False: In a right triangle, the sum of the squares of the legs equals the square of the hypotenuse.	True
33	True or False: Division by zero is undefined in mathematics.	True
33.125	Solve $(1/2)x + 9 = 19$ for x	$x = 5$
33.25	True or False: If 2 lines are perpendicular, their slopes are negative reciprocals of each other.	True
33.375	The product of 2 consecutive integers is 42. Find the two integers.	6 and 7
33.5	What is the name of a polynomial with exactly two terms?	binomial
33.625	What is the name of a polynomial with exactly three terms?	trinomial
33.750	Find the sum of three consecutive integers if the first integer is -1.	0
33.875	True or False: The sum of two irrational numbers is always irrational.	False
34	Find the fraction equivalent of .3333... repeating.	3/9 or 1/3

The End