

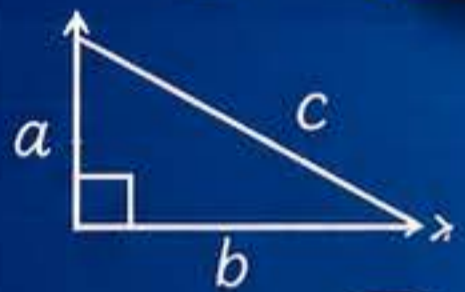
SUPER STUDENTS

MATH, SCIENCE, AND SPELLING
FOR GRADES 1 THRU 12

*What Your Child
Should Know*

Vocabulary
Spelling
Grammar
Reading
Writing

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$



$$A = \pi r^2$$

A circle with a radius line drawn from the center to the circumference, labeled 'r'.

$$a^2 + b^2 = c^2$$



**MATH BUILDS
BRIGHT FUTURES**

- Problem Solve
- Think Critically
- Achieve More
- Succeed in Life



**OVER
3,500
QUESTIONS
AND ANSWERS**



**OVER
1,000
PAGES**



**COMPREHENSIVE
COVERAGE FOR
EVERY GRADE LEVEL
1 THRU 12**



ALFRED RICKS JR., MD



EDUCATOR • AUTHOR • ADVOCATE FOR ACADEMIC EXCELLENCE

SUPER STUDENTS
Math, Science, Spelling

ALFRED RICKS JR MD

Math
Science
Spelling

SUPER STUDENTS

Math
Science
Spelling

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Math
Science
Spelling

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Math
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Spelling

LEGEND

A

B

C

D

E

Using the distributive property, what is $2(9 + 7)$ equal to?

$(2 \times 9) + (2 \times 7)$

According to the distributive property, multiplying the sum of two or more addends by a number will give the same result as multiplying each addend individually by the number and then adding the products together. To “distribute” means to divide something or give a share or part of something. So what does distributive property mean in math? The distributive property describes how we can distribute multiplication over addition and subtraction.

$2(9 + 7) = 2$ times each number in the parenthesis = 2 times $9 + 2$ times $7 = (2 \times 9) + (2 \times 7)$

$2(9 + 7) = 2(16) = 32$

Websites

<https://www.splashlearn.com/math-vocabulary/algebra/distributive-property>

<https://www.khanacademy.org/math/4th-grade-foundations-engageny/4th-m3-engage-ny-foundations/4th-m3-te-foundations/a/distributive-property-explained>

YouTube

<https://www.youtube.com/watch?v=nAo5w8QK7yU>

A-Grade level of the question

B-Question

C-Answer to the question

D-Explanation/solution of the answer

E-Websites with more information on this topic

Spelling Card 122

F

1. THIS
2. FED
3. CABIN
4. TRANQUIL
5. BREAKABLE
- 6,7,8. MUSEUM
9. UNFORGETTABLE
10. HYPOCHONDRIAC
11. APHORISM
12. PHILIPPINES

F-Grade level for each spelling word

Math
Science
Spelling

SUPER STUDENTS

Math
Science
Spelling

MATH

Math Card 001

$$\boxed{1} \quad 1 + 1 =$$

$$\boxed{1} \quad 2$$

1 cat plus 1 cat equals 2 cats



MATH CARD 001

$\boxed{2}$ What is $\frac{1}{3}$ of 90?

$\boxed{2}$ 30

$\frac{1}{3}$ means dividing the value into 3 equal parts

90 divided by 3 equals 30

30 times 3 equals 90

$\frac{1}{3} = 1$ divided by 3 = 0.33333

90 times 0.33333 = 30

$\boxed{3}$ Using the distributive property, what is $2(9 + 7)$ equal to?

$$\boxed{3} \quad (2 \times 9) + (2 \times 7)$$

According to the distributive property, multiplying the sum of two or more addends by a number will give the same result as multiplying each addend individually by the number and then adding the products together. To “distribute” means to divide something or give a share or part of something. So what does distributive property mean in math? The distributive property describes how we can distribute multiplication over addition and subtraction.

$$2(9 + 7) = 2 \text{ times each number in the parenthesis} = 2 \text{ times } 9 + 2 \text{ times } 7 = (2 \times 9) + (2 \times 7)$$

$$2(9 + 7) = 2(16) = 32$$

Websites

<https://www.splashlearn.com/math-vocabulary/algebra/distributive-property>

<https://www.khanacademy.org/math/4th-grade-foundations-engageny/4th-m3-engage-ny-foundations/4th-m3-te-foundations/a/distributive-property-explained>

YouTube

<https://www.youtube.com/watch?v=nAo5w8QK7yU>

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MATH

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<https://www.youtube.com/watch?v=gw893STHN9w>

<https://www.youtube.com/watch?v=CTw40jSAUx0>

4 How do you represent $13 \frac{3}{4}$ with decimals?

4 13.75

All fractions can be converted into decimals by dividing the numerator by the denominator. For example, the fraction $\frac{4}{5}$ represents “4 out of 5,” or 4 divided by 5. This fraction can be converted into a decimal by dividing 4 by 5. The fraction $13 \frac{3}{4} =$

$$13 \times 4 + 3 =$$

$$52 + 3 = 55$$

$$55/4 =$$

$$55 \text{ divided by } 4 =$$

$$13.75$$

$$13 \frac{3}{4} = 13 + \frac{3}{4} =$$

$$3 \text{ divided by } 4 = .75$$

$$13 + .75 =$$

$$13.75$$

MATH CARD 001

Websites

<https://hellothinkster.com/math-questions/decimals/what-is-13-3-4-as-a-decimal>

<https://visualfractions.com/calculator/mixed-to-decimal/what-is-13-3-4-as-a-decimal/>

YouTube

<https://www.youtube.com/watch?v=guBVW5PiHLs>

<https://www.youtube.com/watch?v=WRqqLuHZWhw>

5 At what temperature does water freeze?

5 32°F (0°C)

Water freezes at 0 degrees Celsius and 32 degrees Fahrenheit. The freezing point is the temperature by which a liquid turns into a solid. When liquid water freezes, internal energy is removed from the system.

Website

<https://sciencenotes.org/what-is-the-freezing-point-of-water-fahrenheit-celsius-and-kelvin/>

https://www.engineeringtoolbox.com/freezing-points-liquids-d_1261.html

YouTube

<https://www.youtube.com/watch?v=jLZ7DWteVJs>

<https://www.youtube.com/watch?v=tt2Ua2LWEQ8>

Math
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MATH

Math
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Spelling

6.7.8 7^2 can also be written which way? (a) 7×7 (b) 7×2
6.7.8 (a) 7×7

$$7^2 = 7 \times 7 = 49$$

Finding the Square of a Number is a simple method. We need to multiply the given number by itself to find its square number. The square term is always represented by a number raised to the power of 2. For example, the square of 7 is 7 multiplied by 7, i.e., $7 \times 7 = 7^2 = 49$

YouTube

<https://www.youtube.com/watch?v=JJ95S8UDnxg>

<https://www.youtube.com/watch?v=pDoLYxOd5O8>

<https://www.youtube.com/watch?v=BJzZD03Sguc>

MATH CARD 001

9 Natural numbers are also called _____ numbers.
9 Counting

Natural numbers are all positive integers from 1 to infinity. They are also called counting numbers as they are used to count objects. Natural numbers do not include 0 or negative numbers.

10 Solve for x. $|x-5| = 9$
10 $x=14$ or $x=-4$

The absolute value (or modulus) $|x|$ of a real number x is the non-negative value of x without regard to its sign. For example, the absolute value of 5 is 5, and the absolute value of -5 is also 5. The absolute value of a number may be thought of as its distance from zero along real number line.

$$|x - 5| = 9$$

$$|x - 5| = +9 \text{ or } -9$$

$$x - 5 = +9$$

$$x = 9 + 5$$

$$x = 14$$

$$x - 5 = -9$$

$$x = -9 + 5$$

$$x = -4$$

Math
Science
Spelling

SUPER STUDENTS

MATH

Math
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Websites

<https://www.mathsisfun.com/numbers/absolute-value.html>

<https://www.hmhco.com/blog/teaching-absolute-value-of-a-number-in-math>

<https://www.khanacademy.org/math/algebra-home/alg-absolute-value/alg-absolute-value-equations/v/absolute-value-equations>

<https://www.purplemath.com/modules/absolute.htm>

<https://byjus.com/maths/absolute-values/>

Youtube

<https://www.youtube.com/watch?v=fCelOk2M96M>

<https://www.youtube.com/watch?v=w-5R2Cze-Wc>

<https://www.youtube.com/watch?v=zxaT8ArCKjQ>

<https://www.youtube.com/watch?v=sCcsnuwihEw>

11 Evaluate the expression for $q = -1 - 16 - 14q$

11 $-17/15$

“Evaluate the expression for $q = -1 - 16 - 14q$

$$q = -1 - 16 - 14q$$

$$q = -17 - 14q$$

add $14q$ to each side of equation ($-14q + 14q = 0$)

$$q + 14q = -17 + 0$$

$$15q = -17$$

$$q = -17/15$$

Math
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MATH

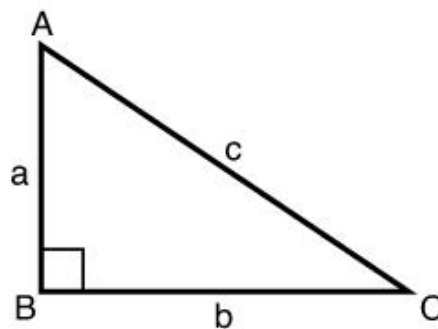
Math
Science
Spelling

12 The Pythagorean Theorem ONLY works on which triangle?
(a) obtuse (b) scalene (c) isosceles (d) right
12 (d) right

The Pythagorean Theorem is a fundamental principle in geometry that relates the lengths of the sides of a right-angled triangle. The Theorem is a geometric theorem that the sum of the squares on the legs of a right triangle is equal to the square of the hypotenuse (the side opposite the right angle).

$$a^2 + b^2 = c^2$$

$$c = \sqrt{a^2 + b^2}$$



If $a^2 + b^2 = c^2$, then $\triangle ABC$
is a right triangle

A right triangle has one angle equal to 90 degrees, making it the only type of triangle where the Pythagorean Theorem exclusively applies. The right angle is a crucial condition for the theorem to be valid.

Websites

<https://www.calculator.net/pythagorean-theorem-calculator.html>

<https://www.britannica.com/science/Pythagorean-theorem>

<https://www.mathsisfun.com/pythagoras.html>

<https://byjus.com/maths/pythagoras-theorem/>

YouTube

<https://www.youtube.com/watch?v=d8EA5TxGzcY>

<https://www.youtube.com/watch?v=WqhlG3Vakw8>

<https://www.youtube.com/watch?v=AhFjfCdG61Y>

<https://www.youtube.com/watch?v=nCD-bAEbB3I>

Heron's Formula:

<https://www.youtube.com/watch?v=juQxKidy-g0>

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MATH

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Spelling

Math Card 002

$$\boxed{1} \quad 1 + 2 =$$

$$\boxed{1} \quad 3$$

$$1 + 2 = 3$$

$\boxed{2}$ How many cents is a quarter?

$\boxed{2}$ 25 cents

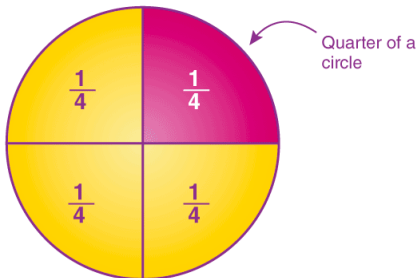
MATH CARD 002

25 cents.

1/4 of 100 (or \$1) is 25 (or 25 cents)

1/4 is also known as a "quarter" of the total

1/4, one-fourth, one quarter



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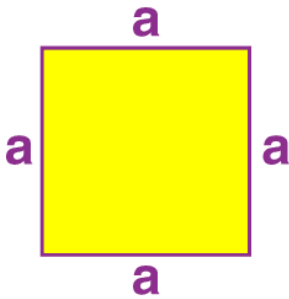
MATH

Math
Science
Spelling

3 If a square is five inches on each side, how many inches is the perimeter of the square?

3 20

4 x 5 inches = 20 inches



Perimeter = 4a

Since all the sides of a square are equal, therefore, the perimeter of square will be 4 times its side

4 How many degrees is the angle where perpendicular lines intersect?

4 90°

Perpendicular lines intersect at a 90-degree angle, forming a square corner.

Website

<https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-angles-between-lines/v/identifying-parallel-and-perpendicular-lines#:~:text=Perpendicular%20lines%20intersect%20at%20a,angles%20and%20symbols%20in%20diagrams.>

<https://www.cliffsnotes.com/study-guides/geometry/fundamental-ideas/lines-intersecting-perpendicular-parallel>

YouTube

<https://www.youtube.com/watch?v=kQNHfPFS-ss>

<https://www.youtube.com/watch?v=lxkqJc3P40E>

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MATH

Math
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Spelling

5 How many hours and minutes are in 555 minutes?

5 9 hrs 15 min

There are 60 minutes in hour. Dividing minutes by 60 gives you hours.

555 divided by 60 = 9hrs (540 minutes). 555 minutes minus 540 minutes is an additional 15 minutes.

9 hours and 15 minutes

Website

<https://www.khanacademy.org/math/cc-fourth-grade-math/imp-measurement-and-data-2/imp-converting-units-of-time/a/converting-units-of-time-review>

MATH CARD 002

6,7,8 Reduce the fraction 27/36 to: (a)9/12 (b)7/9 (c)3/4

6,7,8 (c)3/4

27/36 divide both numbers of fraction by same number

divide by 3 and reduce the fraction to 9/12 (you can still divide both numbers)

divide by 3 and reduce the fraction to 3/4

Could begin by dividing by 9 to reduce the fraction to 3/4

9 What are integers?

9 Positive and negative whole numbers and zero

An integer is a whole number (not a fractional number) that can be positive, negative, or zero.

Website

<https://www.cuemath.com/numbers/integers/>

<https://byjus.com/maths/integers/>

<https://www.splashlearn.com/math-vocabulary/integers>

YouTube

<https://www.youtube.com/watch?v=ibKriK06WAs>

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MATH

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Spelling

<https://www.youtube.com/watch?v=AF31IWJJSgg>
<https://www.youtube.com/watch?v=5oHJcmYbHvA>

$$\boxed{10} \text{ Solve for } x. |3x - 9| = 0$$

$$\boxed{10} x=3$$

$$|3x - 9| = 0$$

$$3x = 0 + 9$$

$$3x = 9$$

$$x = 9/3$$

$$x = 3$$

The absolute value (or modulus) $|x|$ of a real number x is the non-negative value of x without regard to its sign. For example, the absolute value of 5 is 5, and the absolute value of -5 is also 5. The absolute value of a number may be thought of as its distance from zero along real number line.

Websites

<https://www.mathsisfun.com/numbers/absolute-value.html>

<https://www.hmhco.com/blog/teaching-absolute-value-of-a-number-in-math>

<https://www.khanacademy.org/math/algebra-home/alg-absolute-value/alg-absolute-value-equations/v/absolute-value-equations>

<https://www.purplemath.com/modules/absolute.htm>

<https://byjus.com/maths/absolute-values/>

Youtube

<https://www.youtube.com/watch?v=fCelOk2M96M>

<https://www.youtube.com/watch?v=w-5R2Cze-Wc>

<https://www.youtube.com/watch?v=zxaT8ArCKjQ>

<https://www.youtube.com/watch?v=sCcsnuwihEw>

$$\boxed{11} \text{ Find the sum of the series } 6 + 10 + 14 + 18 + 22 + 26 + 30 + 34 + 38 + 42 + 46 + 50 + 54.$$

$$\boxed{11} 390$$

Adding all the number together is 390

$$6 + 10 = 16$$

$$16 + 14 = 30$$

$$30 + 18 = 48$$

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$$48 + 22 = 70$$

$$70 + 26 = 96$$

$$96 + 30 = 126$$

$$126 + 34 = 160$$

$$160 + 38 = 198$$

$$198 + 42 = 240$$

$$240 + 46 = 286$$

$$286 + 50 = 336$$

$$336 + 54 = 390$$

Find the sum of 13 terms of 6, 10, 14, 18, ...

You first need to know that the Sum(S) of first n terms is given by the formula,

$$S = n/2(a + L)$$

S = the sum of the first n terms.

n = represents position of the last term

a = the first term

L = the last term.

To find the last term use the formula

$$L = a + (n - 1)d$$

d = the common difference of the terms

example 1,4,7,10, The common difference is 3

example 1,5,9,13, The common difference is 4

$$a = 6,$$

$$d = 10 - 6 = 4, \text{ and}$$

$$n = 13,$$

$$L = a + (n - 1)d$$

$$L = 6 + (13 - 1)4$$

$$L = 6 + (12) \times 4$$

$$L = 6 + 48$$

$$L = 54$$

Now, we will put this value of L in the equation

$$S = n/2 (a + L)$$

$$S = 13/2 (6 + 54)$$

$$S = 6.5 \times 60$$

$$S = 390$$

Answer: The sum of the first 13 terms of this problem is 390

We can also combine the equation $L = a + (n - 1)d$ with $S = n/2(a + L)$

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$S = n/2 (a+L)$; Now substitute L with $a+(n-1)d$

$$S = n/2 (a+a + (n-1)d)$$

$$S = n/2 (2a + (n-1)d)$$

$$S = 13/2 (2 \times 6 + (13-1) 4)$$

$$S = 6.5 \times (12 + (12) \times 4)$$

$$S = 6.5 \times (12 + (48))$$

$$S = 6.5 \times (60)$$

$$S = 390$$

Websites

<https://byjus.com/sum-of-arithmetic-sequence-formula/>

https://www.varsitytutors.com/hotmath/hotmath_help/topics/sum-of-the-first-n-terms-of-a-series

<https://www.cuemath.com/sum-of-arithmetic-sequence-formula/>

[https://math.libretexts.org/Bookshelves/Algebra/College_Algebra_and_Trigonometry_\(Beveridge\)/06%3A_Sequences_and_Series/6.04%3A_Sum_of_a_Series](https://math.libretexts.org/Bookshelves/Algebra/College_Algebra_and_Trigonometry_(Beveridge)/06%3A_Sequences_and_Series/6.04%3A_Sum_of_a_Series)

YouTube

<https://www.youtube.com/watch?v=TYbXDlmvcmg>

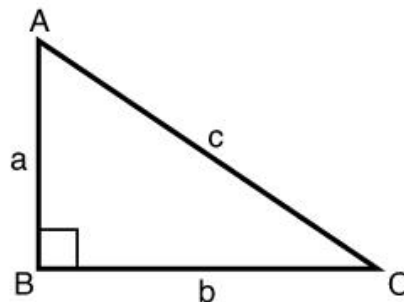
<https://www.youtube.com/watch?v=SXRQcxt6jsk>

<https://www.youtube.com/watch?v=S-ByQjbN1VA>

MATH CARD 002

12 The longest side of a right-angle triangle is called the hypotenuse (the side which is opposite to the right angle). True or False?

12 True



If $a^2 + b^2 = c^2$, then $\triangle ABC$

is a right triangle

side c of the right triangle is the hypotenuse

side a and side b are the legs

In a right-angled triangle, the hypotenuse will always be the longest side.

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The hypotenuse is the side opposite the right angle and is the side that the Pythagorean Theorem relates to the other two sides, which are called legs. So, in a right triangle with legs labeled as Leg a and Leg b, the hypotenuse (often labeled as side c) will always be the longest side.

Websites

<https://www.khanacademy.org/math/geometry/hs-geo-trig/xff63fac4:hs-geo-trig-ratios-similarity/a/opposite-adjacent-hypotenuse#:~:text=The%20hypotenuse%20is%20always%20the,angle%2C%20the%20ninety%20degree%20angle.>

<https://www.omnicalculator.com/math/hypotenuse>

YouTube

<https://www.youtube.com/watch?v=tiLqpmCHHco>

<https://www.youtube.com/watch?v=OC7TtN3emCI>

<https://www.youtube.com/watch?v=IZFSylNbZq4>

MATH CARD 003

Math Card 003

$$\boxed{1} \ 7 + 6 =$$

$$\boxed{1} \ 13$$

$$7 + 6 = 13$$

$$\boxed{2} \ 27 + 13 = 30 + \underline{\quad}$$

$$\boxed{2} \ 10$$

$$\begin{array}{r} 27 \\ + 13 = \\ 40 \end{array}$$

$$40 - 30 + 10$$

$$\boxed{2} \ 27 + 13 = 30 + \underline{10}$$

Math
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Spelling

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MATH

Math
Science
Spelling

3 What is the mean of 9, 3, 4, and 2?

3 4.5

$$9 + 3 + 4 + 2 =$$

$$\# \text{ of data points} = 4$$

$$18/4 = 4.5$$

The arithmetic mean is the sum of all of the data points divided by the number of data points.

Mean = sum of data/# of data points

The median is the middle point in a dataset—half of the data points are smaller than the median and half of the data points are larger. To find the median:

--Arrange the data points from smallest to largest.

--If the number of data points is odd, the median is the middle data point in the list.

--If the number of data points is even, the median is the average of the two middle data points in the list.

--Arrange the data points from smallest to largest.

median = 78 , 85, 90, 91, 93, 94, 95, 96

--If the number of data points is odd, the median is the middle data point in the list.

median = number of data points is (8) even

--If the number of data points is even, the median is the average of the two middle data points in the list.

median = $91 + 93/2 = 184/2 = 92$

MATH CARD 003

4 What is the area of a rectangular room if one wall is 11 feet long and the other wall is 14 feet long?

4 154 ft

Area is Length X width

Length is 14 ft

Width is 11 ft

$$14 \times 11 = 154 \text{ sq ft}$$

Website

<https://www.cuemath.com/measurement/area-of-rectangle/>

Math
Science
Spelling

SUPER STUDENTS SPELLING

Math
Science
Spelling

Spelling Card 118

1. MATH
2. YEAR
3. BOUGHT
4. SWINGS
5. DELEGATE
- 6,7,8. DOMINATION
9. SYNTHESIZE
10. OBLIVIOUS
11. NONCHALANT
12. ANNIHILATE

SPELLING CARD 118 - 120

Spelling Card 119

1. DOWN
2. DRAW
3. DAWN
4. POSITIVE
5. ANNUAL
- 6,7,8. OBSOLETE
9. AUTHENTIC
10. EPOCH
11. ELONGATE
12. OPTICS

Spelling Card 120

1. THAT
2. SIX
3. HIGHEST
4. FINGER
5. BOTTOM
- 6,7,8. COMPLAINING
9. UNCANNY
10. CONFER
11. CONSUL
12. TANTALIZE

Math
Science
Spelling

SUPER STUDENTS SPELLING

Math
Science
Spelling

Spelling Card 121

1. COME
2. THERE
3. HAIR
4. CENTURY
5. CENTENNIAL
- 6,7,8. PATHOLOGY
9. CONCURRENCE
10. CRAM
11. SALLY
12. PITEOUS

SPELLING CARD 121 - 123

Spelling Card 122

1. THIS
2. FED
3. CABIN
4. TRANQUIL
5. BREAKABLE
- 6,7,8. MUSEUM
9. UNFORGETTABLE
10. HYPOCHONDRIAC
11. APHORISM
12. PHILIPPINES

Spelling Card 123

1. THIN
2. TON
3. SPEECH
4. SOLVE
5. ENTRANCE
- 6,7,8. INACCURATE
9. UNFATHOMABLE
10. ESCAPEDE
11. FIDELITY
12. REINSTATE

Math
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Spelling

SUPER STUDENTS SPELLING

Math
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Spelling

Spelling Card 130

1. SHOP
2. BUY
3. DENOMINATOR
4. ANGLE
5. NECESSARY
- 6,7,8. FLORIDA
9. APPARATUS
10. ATTEMPT
11. EXPRESSLY
12. DEMORALIZE

SPELLING CARD 130

APPENDIX

MATH FORMULAS
WEBSITES FOR MATH, SCIENCE, AND SPELLING

$$(a + b)^2 = a^2 + b^2 + 2ab$$

$$(a - b)^2 = a^2 + b^2 - 2ab$$

$$(a - b)^3 = a^3 - b^3 - 3ab(a - b)$$

$$(a - b)^3 = a^3 - 3a^2b + 3ab^2 - b^3$$

$$a^2 - b^2 = (a + b)(a - b)$$

$$a^2 + b^2 = (a + b)^2 - 2ab \quad \text{or} \quad a^2 + b^2 = (a - b)^2 + 2ab$$

$$a^3 + b^3 = (a + b)(a^2 - ab + b^2) = (a + b)^3 - 3ab(a + b)$$

$$a^3 - b^3 = (a - b)(a^2 + ab + b^2) = (a - b)^3 + 3ab(a - b)$$

$$(a + b)(a - b) = a^2 - b^2$$

$$2(a^2 + b^2) = (a + b)^2 + (a - b)^2$$

$$(a + b)^2 - (a - b)^2 = 4ab$$

$$(a + b)^2 = (a - b)^2 + 4ab$$

$$(a - b)^2 = (a + b)^2 - 4ab$$

$$(a + b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$$

$$(a + b)^3 = a^3 + b^3 + 3ab(a + b)$$

$$a^4 + b^4 = (a + b)(a - b)[(a + b)^2 - 2ab]$$

$$(a + b + c)^2 = a^2 + b^2 + c^2 + 2ab + 2bc + 2ca$$

$$(a + b - c)^2 = a^2 + b^2 + c^2 + 2ab - 2bc - 2ca$$

$$(a - b - c)^2 = a^2 + b^2 + c^2 - 2ab + 2bc - 2ca$$

$$a^3 + b^3 + c^3 - 3abc = (a + b + c)(a^2 + b^2 + c^2 - ab - bc - ca)$$

$$a^4 + a^2b^2 + b^4 = (a^2 + ab + b^2)(a^2 - ab + b^2)$$

$$a^4 + a^2 + 1 = (a^2 + a + 1)(a^2 - a + 1)$$

$$\text{if } a + b + c = 0 \text{ then } a^3 + b^3 + c^3 = 3abc$$

$$a^8 - b^8 = (a^4 + b^4)(a^2 + b^2)(a + b)(a - b)$$

$$a^m \times a^n = a^{m+n}$$

$$a^0 = 1$$

$$a^m \div a^n = a^{m-n}$$

$$(a/b)^m = a^m/b^m$$

$$(a^m)^n = a^{m \times n}$$

$$a^{-m} = 1/a^m$$

$$a^1 = 0$$

$$a^{x/y} = \sqrt[y]{(a)^x}$$

Inch to Millimeters - multiply by 25.4

Yards to Meters - multiply by .9144

Millimeters to Inch - multiply by .03937

Meters to Yards - multiply by 1.094

Feet to Meters - multiply by .3048

Miles to km - multiply by 1.609

Meters to Feet - multiply by 3.281

km to Miles - multiply by .6214

Ounces to Grams - multiply by 31.103

Grams to Ounces - multiply by .03527

Kilograms to Pounds - multiply by 2.2046

Pounds to kilograms - multiply by .4536

1 Gallon to Liters - multiply by 3.7854

1 liter to Gallons - multiply by 0.26417

Celsius to Kelvin: $K = C + 273.15$

Kelvin to Celcius: $C = K - 273.15$

Fahrenheit to Celcius: $C = (F-32) (5/9)$

Celsius to Fahrenheit: $F = C(9/5) + 32$

Fahrenheit to Kelvin: $K = (F-32) (5/9) + 273.15$

Kelvin to Fahrenheit: $F = (K-273.15) (9/5) + 32$

Adding Fractions: $x/y + z/w = (x.w + y.z)/(y.w)$

(Same denominator): $a/b + c/b = (a+c)/b$

Subtracting Fractions: $x/y - z/w = (x.w - y.z)/(y.w)$

(Same denominator): $a/b - c/b = a-c/b$

Multiplying Fractions:

$x/y \times z/w = xz/yw$

$a/b \times c/d = axc/bxd$

Dividing Fractions:

$x/y \div z/w = x/y \times w/z = xw/yz$

$a/b \div c/d = a/b \times d/c = a \times d/b \times c$

WEB SITES

MATH

SCIENCE

SPELLING

MATH WEB SITES

ABCmouse - <https://www.abcmouse.com/>

Adventure Academy - <https://www.adventureacademy.com/>

Arithmetic Four - <http://www.shodor.org/interactivate/activities/ArithmeticFour/>

Art of Problem Solving - <https://artofproblemsolving.com/online>

BrainPOP - <https://www.brainpop.com/math/>

Buzzmath - <https://www.buzzmath.com>

ByteLearn- <https://www.bytelearn.com/articles/>

Casio - <https://edu.casio.com/forteachers/er/index.php>

Chartle - <https://www.chartle.com/>

Citizen Math - <https://www.citizenmath.com/>

Classkick - <https://classkick.com/>

Common Core Sheets - <https://www.commoncoresheets.com/>

Coolmath Games - <https://www.coolmathgames.com/>

Coolmath4kids - <https://www.coolmath4kids.com/>

Corbettmaths - <https://corbettmaths.com/>

CueThink - <https://www.cuethink.com/>

DeltaMath - <https://www.deltamath.com/>

Desmos Graphing Calculator - <https://www.desmos.com/>

Desmos Math - <https://amplify.com/programs/desmos-math-6-a1/?r=w.hc>

Didax - <https://www.didax.com/math/virtual-manipulatives.html>

DragonBox - <https://dragonbox.com/>

DreamBox - <https://www.dreambox.com/>

Education.com - <https://www.education.com/>

Edulastic - <https://edulastic.com/>

edX - <https://www.edx.org/>

eMathInstruction - <https://www.emathinstruction.com/>

Figure This! - <https://figurethis.nctm.org/index.html>

First in Math - <https://www.firstinmath.com/>

Flocabulary - <https://www.flocabulary.com/>

Formative - <https://www.formative.com/>

Freckle Education - <https://freckle.com/en-us/>

Funbrain - <https://www.funbrain.com/>

GeoGebra - <https://www.geogebra.org/>

Get the Math - <https://www.thirteen.org/get-the-math/>

Illuminations - <https://illuminations.nctm.org/>

Illustrative Mathematics - <https://illustrativemathematics.org/>

Imagine Learning - <https://www.imaginelearning.com/products/math/>

Istation - <https://www.istation.com/math>

IXL Math - <https://www.ixl.com/math>

JLab - <https://education.jlab.org/indexpages/elementgames.html>

Khan Academy - <https://www.khanacademy.org/>

Kuta Software - <https://www.kutasoftware.com/>

Mangahigh - <https://www.mangahigh.com/en-us/>

Mashup Math - <https://www.mashupmath.com/>