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MATHCOUNTS - 100 Classroom Lessons
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Number Lesson

- 1 Square Two Digit Natural Number Ending in 5.
- 2 Square a Natural Number from 1 to 36.
- 3 Cube a Natural Number from 1 to 36.
- 4 Multiply Two Two-digit Natural Numbers Ending in 5.
- 5 Multiply Two Natural Numbers between 100 and 110.
- 6 Multiply Two Natural Numbers between 90 and 100.
- 7 Multiply a Natural Number between 100 and 110 by a Natural Number between 90 and 100.
- 8 Multiply by 11, 111, 101, 1001,
- 9 Square a Natural Number between 50 and 60.
- 10 Multiply Two Digit Natural Numbers with Same Decade, Sum of Units Digits = 10.
- 11 Multiply Two Digit Natural Numbers with Same Units, Sum of Tens Digits = 10.
- 12 Use FOIL to Multiply Two Two-Digit Natural Numbers.
- 13 Multiply Two Mixed Numbers with = Whole Numbers and Fractions = 1.
- 14 Use FOIL to Multiply Mixed Numbers.
- 15 Use Additive Inverses and Multiplicative Inverses.
- 16 Find the Product of Two Mixed Numbers with the Same Fractions.
- 17 Find the Sum of Consecutive Natural Numbers 1 to n.
- 18 Find the Sum of Consecutive Natural Odd Numbers 1 to n.
- 19 Find the Sum of Consecutive Natural Even Numbers 1 to n.
- 20 Find the Sum of Reciprocals of Two Natural Numbers.
- 21 Generate Arithmetic Sequences.
- 22 Generate Geometric Sequences and Other Sequences.
- 23 Use PEMDAS.
- 24 Use the Weiwien Chen Method.
- 25 Multiply by 25, $12\frac{1}{2}$, $16\frac{2}{3}$, $33\frac{1}{3}$,
- 26 Divide by 25, $12\frac{1}{2}$, $16\frac{2}{3}$, $33\frac{1}{3}$,
- 27 Change from Some Base to Base 10.
- 28 Change from Base 10 to Another Base.
- 29 Change from Base 2 to Base 4, 8, 16,
- 30 Convert Roman Numerals.
- 31 Use A Continued Fraction Algorithm.
- 32 Use Ratio and Proportion.
- 33 Use Subsets of Sets.
- 34 Use Percents.
- 35 Find What Percent a Number is Greater than Another.
- 36 Convert Fahrenheit to/from Centigrade.
- 37 Find Simple Interest.
- 38 Find Rates of Change.
- 39 Find the Union and/or the Intersection of Sets.
- 40 Find the (Arithmetic) Mean of a Set of Data.
- 41 Find the Mode of a Set of Data.
- 42 Find the Median of a Set of Data.
- 43 Find the Range of a Set of Data.
- 44 Find the Geometric Mean of a Set of Data.
- 45 Find the Harmonic Mean of Two Numbers.
- 46 Find Factorials.
- 47 Find Permutations.
- 48 Find Combinations.

- 49 Estimate in Addition or Subtraction.
- 50 Estimate in Multiplication or Division.
- 51 Use Divisibility Rules for 2^n Power.
- 52 Use Divisibility Rule for 5.
- 53 Use Divisibility Rule for 3, 37,
- 54 Use Divisibility Rule for 7, 11, 13,
- 55 Find GCF.
- 56 Find LCM.
- 57 Find Product of the GCF and the LCM of Two Numbers.
- 58 Find the Number of Factors of a Natural Number.
- 59 Find the Sum of the Factors of a Natural Number > 1 .
- 60 Find the Sum of the Reciprocals of Factors of a Natural Number > 1 .
- 61 Find Remainders.
- 62 Find Maximum Number not Covered by a Combination of Two Numbers.
- 63 Solve Path Problems.
- 64 Utilize Simple Radical Form.
- 65 Find the Probability of an Event.
- 66 Find the Odds of an Event.
- 67 Find the Number of Diagonals in a Polygon.
- 68 Use Pythagorean Triples.
- 69 Utilize 30-60-90 Triangles.
- 70 Utilize Right Isosceles Triangles.
- 71 Find Perimeter of Triangles and Quadrilaterals.
- 72 Find Circumference of Circles.
- 73 Find Perimeter of Regular Polygons.
- 74 Find Area of Triangles.
- 75 Find Area of Quadrilaterals with Perpendicular Diagonals.
- 76 Find the Area of Squares and Rectangles.
- 77 Find the Area of Circles.
- 78 Find the Area of Equilateral Triangles.
- 79 Find the Area of Trapezoids.
- 80 Use Pick's Law.
- 81 Find the Surface Areas of Cubes.
- 82 Use Coordinate Formula for Area.
- 83 Use Heron's Formula
- 84 Find the Volumes of Cubes.
- 85 Find the Surface Areas of Rectangular Prisms.
- 86 Find the Volumes of Rectangular Prisms.
- 87 Find the Surface Areas of Cylinders.
- 88 Find the Volumes of Cylinders.
- 89 Find the Surface Areas of Pyramids.
- 90 Find the Volumes of Pyramids.
- 91 Find the Surface Areas of Cones.
- 92 Find the Volumes of Cones.
- 93 Find the Surface Areas of Spheres.
- 94 Find the Volumes of Spheres.
- 95 Find Supplements and/or Complements of Angles.
- 96 Find the Measures of Interior and/or Exterior Angles of Polygons.
- 97 Find the Slope of a Line.
- 98 Find the x-intercept, y-intercept, and Other Intercepts of a Line.
- 99 Find the Sum of Roots of Quadratic Equations.
- 100 Find the Product of Roots of Quadratic Equations.