LOGIC QUIZ – TEAM EVENT

The Logic Test may contain, but is not limited to, any of the following types of problems:

<table>
<thead>
<tr>
<th>Ken Ken</th>
<th>Sudoku</th>
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<tbody>
<tr>
<td>Cryptograms</td>
<td>Word problems</td>
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<tr>
<td>Anagrams</td>
<td>Spatial reasoning</td>
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<td>Patterns &amp; graphs</td>
<td>Probability</td>
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<tr>
<td>Lateral thinking</td>
<td>Logic grids</td>
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<tr>
<td>Venn diagrams</td>
<td>Rebus puzzles</td>
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<tr>
<td>True/False logic</td>
<td>Kakuro</td>
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<td>Word ladders</td>
<td>Riddles</td>
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<tr>
<td>Logic fallacies</td>
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</tbody>
</table>

The following websites provide excellent sample problems:

http://www.brainbashers.com
http://www.mensa.org/workout.php
http://www.mensaforkids.org
http://puzzlersparadise.com
http://www.sudoku.org.uk
http://www.mathisfun.com/puzzles
http://www.allstarpuzzles.com
http://www.braingle.com/brainteasers
SUPER QUIZ – TEAM EVENT

Note: Links from the Catholic Schools Academic Junior High Decathlon (AJHD) to third-party sites do not constitute an endorsement by the AJHD of the parties or their products or services. The appearance of advertisements or products or information for services on third-party sites does not constitute an endorsement by the AJHD, nor does the AJHD investigate any claims made by any advertiser. The AJHD is not responsible for incorrect information on third-party sites, nor is it responsible for alterations or edits to materials linked to the AJHD site. It is advised that parents and/or coaches screen all materials prior to viewing by academic decathletes.

FINE ARTS

Public Works of Art Project

The PWAP was created on December 8, 1933 out of funding provided by the Federal Emergency Relief Administrator, who allocated money from the recently-created Civil Works Administration. In 1934, Americans grappled with an economic situation that feels all too familiar today. Against the backdrop of the Great Depression, President Franklin Delano Roosevelt's administration created the Public Works of Art Project—the first federal government program to support the arts nationally. Federal officials in the 1930s understood how essential art was to sustaining America’s spirit. Artists from across the United States who participated in the program, which lasted only six months from mid-December 1933 to June 1934, were encouraged to depict "the American Scene." The Public Works of Art Project not only paid artists to embellish public buildings, but also provided them with a sense of pride in serving their country.

Use these links to study the Public Works of Art Project and the works that were created as the result of this project.

https://www.britannica.com/topic/Public-Works-of-Art-Project
https://www.britannica.com/event/Great-Depression/Political-movements-and-social-change#ref802293
https://americanart.si.edu/exhibitions/1934
https://livingnewdeal.org/glossary/public-works-art-project-pwap-1933-2/
https://bjws.blogspot.com/2012/10/1930s-americas-great-depression-1934.html
http://depts.washington.edu/depress/PWAP.shtml
Parents need to know that *Stella by Starlight*, by award-winning author Sharon M. Draper, deals with life in the segregated South of 1932, as seen by a bright young 11-year-old girl growing up African-American in Bumblebee, North Carolina. Violence looms, in the form of fatal on-the-job "accidents" and Klan arson, as well as young Stella's memories of the town's white doctor hitting her 5-year-old self as hard as he could because she got a bit of mud on his shoe. But the violence is overshadowed by the love, courage, and resourcefulness of the community, and support often comes from unlikely quarters. Set in the days leading up to Franklin D. Roosevelt's election, it's a relatable, inspiring tale likely to spark intriguing discussions.

**About the Author**

Sharon M. Draper is a New York Times bestselling author and recipient of the Margaret A. Edwards Award honoring her significant and lasting contribution to writing for teens. She has received the Coretta Scott King Award for both *Copper Sun* and *Forged by Fire*, and was most recently awarded the Charlotte Huck Award for *Stella by Starlight*. Her *Out of My Mind* has won multiple awards and was a New York Times bestseller for over three years. She lives in Cincinnati, Ohio, where she taught high school English for twenty-five years and was named National Teacher of the Year. Visit her at SharonDraper.com.
Dorothy Day: An Introduction to Her Life and Thought

In this introduction to the life and thought of Dorothy Day, one of the most important lay Catholics of the twentieth century, Terrence Wright presents her radical response to God's mercy. After a period of darkness and sin, which included an abortion and a suicide attempt, Day had a profound awakening to God's unlimited love and mercy through the birth of her daughter.

After her conversion, Day answered the calling to bring God's mercy to others. With Peter Maurin, she founded the Catholic Worker Movement in 1933. Dedicated to both the spiritual and the corporal works of mercy, they established Houses of Hospitality, Catholic Worker Farms, and the Catholic Worker newspaper.

Drawing heavily from Day's own writings, this book reveals her love for Scripture, the sacraments, and the magisterial teaching of the Church. The author explores her philosophy and spirituality, including her devotion to Saints Francis, Benedict, and Thérèse. He also shows how her understanding of the Mystical Body of Christ led to some of her more controversial positions such as pacifism.

Since her death in 1980, Day continues to serve as a model of Christian love and commitment. She recognized Christ in the less fortunate and understood that to be a servant of these least among us is to be a servant of God.

Available in Kindle and Paperback:
https://www.amazon.com/Dorothy-Day-Introduction-Life-Thought/dp/1621641570/ref=sr_1_1?s=books&ie=UTF8&qid=1536065344&sr=1-1

Author: Terrence C. Wright
Paperback: 162 pages
Publisher: Ignatius Press (March 20, 2018)
Language: English
ISBN-10: 1621641570
The Great Depression beset America from 1929 to 1939 and is remembered as the greatest economic downturn the country has ever seen. By 1933 approximately 25% of the entire population was unemployed. Men often deserted their families simply because they couldn’t take care of them. Mothers often moved in with other family to save money. That said, it was also a time of a great ingenuity, sometimes out of necessity, sometimes out of boredom, and sometimes out of the great human spirit of survival. In fact, the time period was so rich for inventions, we have The Great Depression to thank for some very handy items we still use today.

Some of the links below expand beyond inventions that took place in the United States. For the purpose of preparing for this event, please only focus on those inventions and innovations that were based in the United States.

Links:
https://www.scientificamerican.com/podcast/episode/great-depression-increased-life-exp-09-09-30/
https://www.thoughtco.com/20th-century-timeline-1992486
https://thinkprogress.org/technological-progress-in-the-1930s-c78fc9793c0b/
The New Deal shaped our nation's politics for decades, and was seen by many as tantamount to the "American Way" itself. Now, in this superb compact history, Eric Rauchway offers an informed account of the New Deal and the Great Depression, illuminating its successes and failures.

Rauchway first describes how the roots of the Great Depression lay in America's post-war economic policies--described as "laissez-faire with a vengeance"--which in effect isolated our nation from the world economy just when the world needed the United States most. He shows how the magnitude of the resulting economic upheaval, and the ineffectiveness of the old ways of dealing with financial hardships, set the stage for Roosevelt's vigorous (and sometimes unconstitutional) Depression-fighting policies. Indeed, Rauchway stresses that the New Deal only makes sense as a response to this global economic disaster. The book examines a key sampling of New Deal programs, ranging from the National Recovery Agency and the Securities and Exchange Commission, to the Public Works Administration and Social Security, revealing why some worked and others did not. In the end, Rauchway concludes, it was the coming of World War II that finally generated the political will to spend the massive amounts of public money needed to put Americans back to work. And only the Cold War saw the full implementation of New Deal policies abroad--including the United Nations, the World Bank, and the International Monetary Fund.

Today we can look back at the New Deal and, for the first time, see its full complexity. Rauchway captures this complexity in a remarkably short space, making this book an ideal introduction to one of the great policy revolutions in history.

Author: Eric Rauchway

Paperback: 160 pages

Publisher: Oxford University Press; 1 edition (March 10, 2008)

ISBN-10: 0195326342

CURRENT EVENTS – INDIVIDUAL

This year’s Current Events resource is Junior Scholastic News. We will be using issues from November 2018 through January 2019.

Scholastic News Ed. 5/6

Scholastic News brings you all the short, on-level informational texts you need to meet academic standards. Every issue features kid-friendly current events that support your social studies and science curriculums.

Link: https://sn56.scholastic.com/home-page-logged-out.html
Grammar Girl Presents the Ultimate Writing Guide for Students

Author: Mignon Fogarty
Paperback: 304 pages
Publisher: St. Martin's Griffin; 1 edition (July 5, 2011)
ISBN-10: 0805089446
Available in Kindle and paperback versions.

Grammar Girl Presents the Ultimate Writing Guide for Students is a complete and comprehensive guide to all things grammar. Complete with a writing style chapter and a guide to the different kinds of writing--everything from school papers to letter writing to e-mails—this guide is sure to become the one-stop, essential book on every student's desk.

Conventions of Standard English:

CCSS.ELA-LITERACY.L.8.1

Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking.

CCSS.ELA-LITERACY.L.8.1.A

Explain the function of verbals (gerunds, participles, infinitives) in general and their function in particular sentences.

CCSS.ELA-LITERACY.L.8.1.B

Form and use verbs in the active and passive voice.

CCSS.ELA-LITERACY.L.8.1.C

Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood.

CCSS.ELA-LITERACY.L.8.1.D

Recognize and correct inappropriate shifts in verb voice and mood.
CCSS.ELA-LITERACY.L.8.2
Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing.

   CCSS.ELA-LITERACY.L.8.2.A, B and C
   Use punctuation (comma, ellipsis, dash) to indicate a pause or break. Use an ellipsis to indicate an omission. Spell correctly.

Knowledge of Language:
CCSS.ELA-LITERACY.L.8.3
Use knowledge of language and its conventions when writing, speaking, reading, or listening.

   CCSS.ELA-LITERACY.L.8.3.A
   Use verbs in the active and passive voice and in the conditional and subjunctive mood to achieve particular effects (e.g., emphasizing the actor or the action; expressing uncertainty or describing a state contrary to fact).

Vocabulary Acquisition and Use:
CCSS.ELA-LITERACY.L.8.4
Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on grade 8 reading and content, choosing flexibly from a range of strategies.

   CCSS.ELA-LITERACY.L.8.4.A
   Use context (e.g., the overall meaning of a sentence or paragraph; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase.

   CCSS.ELA-LITERACY.L.8.4.B
   Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., precede, recede, secede).
American Art of the Depression Era dating from 1930 to 1945: The American Art of the Depression Era directory contains a listing of original works of art from the Depression decade of the 1930’s and into the early 1940’s created by American artists. These pages also include information about the art publishers, associations, clubs, groups and societies located in major cities throughout the United States, such as Boston, Brooklyn, Chicago, Cincinnati, Cleveland, Buffalo, Wichita, Philadelphia, Rochester, San Francisco, Washington D.C. and elsewhere. Many of these organizations provided an opportunity for American artists to work and create original works of art during the Great Depression. A few of the art associations and clubs active during this period that are discussed in this directory include the American Artists Group, the Associated American Artists, New York, the Buffalo Print Club, the Chicago Society of Etchers, the Lone Star Printmakers, the Prairie Print Makers, the Print Club of Cleveland, the Print Club of Philadelphia, the Print Club of Rochester, the Society of American Etchers, the Indiana Society of Printmakers, the Society of Washington D.C. Artists and the Syracuse Print Club.

http://www.artoftheprint.com/mainpages/artindamerican_depression.htm
http://www.artoftheprint.com/mainpages/artindamerican_depression2.htm
http://www.artoftheprint.com/mainpages/artindamerican_depression3.htm
http://www.artoftheprint.com/mainpages/artindamerican_depression4.htm
Parents need to know that positive messages abound in this tale of family tenacity in the Great Depression, but some of the misfortunes and hardships that befall the Malone family are quite harrowing (e.g. losing their home, Mr. Malone's physical and mental deterioration) and may be troubling to more sensitive younger readers. The vivid snapshots of everyday life, main character Deza's exuberant, malapropism-laden love of language and learning, and the sudden dissonance of clashing worlds (say, the world of the Malones, and the world of the banker's family for whom Mrs. Malone cleans house) all add enjoyment, irony and interest to the story for thoughtful readers.


"We are a family on a journey to a place called wonderful" is the motto of Deza Malone’s family.

Deza is the smartest girl in her class in Gary, Indiana, singled out by teachers for a special path in life. But the Great Depression hit Gary hard, and there are no jobs for black men. When her beloved father leaves to find work, Deza, Mother, and her older brother Jimmie go in search of him, and end up in a Hooverville outside Flint, Michigan. Jimmie’s beautiful voice inspires him to leave the camp to be a performer, while Deza and Mother find a new home, and cling to the hope that they will find Father.

The twists and turns of their story reveal the devastation of the Depression and prove that Deza truly is the Mighty Miss Malone.
Know that there are numbers that are not rational, and approximate them by rational numbers.

**CCSS.MATH.CONTENT.8.NS.A.1**

Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.

**CCSS.MATH.CONTENT.8.NS.A.2**

Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., π²). For example, by truncating the decimal expansion of √2, show that √2 is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.

**Expressions and Equations Work with radicals and integer exponents.**

**CCSS.MATH.CONTENT.8.EE.A.1**

Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example, 3² × 3⁻⁵ = 3⁻³ = 1/3³ = 1/27.

**CCSS.MATH.CONTENT.8.EE.A.2**

Use square root and cube root symbols to represent solutions to equations of the form \( x^2 = p \) and \( x^3 = p \), where \( p \) is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that √2 is irrational.

**CCSS.MATH.CONTENT.8.EE.A.3**

Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. For example, estimate the population of the United States as 3 times 10⁸ and the population of the world as 7 times 10⁹, and determine that the world population is more than 20 times larger.

**CCSS.MATH.CONTENT.8.EE.A.4**

Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.
Understand the connections between proportional relationships, lines, and linear equations.

CCSS.MATH.CONTENT.8.EE.B.5
Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.

CCSS.MATH.CONTENT.8.EE.B.6
Use similar triangles to explain why the slope \( m \) is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation \( y = mx \) for a line through the origin and the equation \( y = mx + b \) for a line intercepting the vertical axis at \( b \).

**Analyze and solve linear equations and pairs of simultaneous linear equations.**

CCSS.MATH.CONTENT.8.EE.C.7
Solve linear equations in one variable.

CCSS.MATH.CONTENT.8.EE.C.7.A
Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form \( x = a \), \( a = a \), or \( a = b \) results (where \( a \) and \( b \) are different numbers).

CCSS.MATH.CONTENT.8.EE.C.7.B
Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.

CCSS.MATH.CONTENT.8.EE.C.8
Analyze and solve pairs of simultaneous linear equations.

CCSS.MATH.CONTENT.8.EE.C.8.A
Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.

CCSS.MATH.CONTENT.8.EE.C.8.B
Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. For example, \( 3x + 2y = 5 \) and \( 3x + 2y = 6 \) have no solution because \( 3x + 2y \) cannot simultaneously be 5 and 6.

CCSS.MATH.CONTENT.8.EE.C.8.C
Solve real-world and mathematical problems leading to two linear equations in two
variables. For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.

Understand congruence and similarity using physical models, transparencies, or geometry software.

CCSS.MATH.CONTENT.8.G.A.1
Verify experimentally the properties of rotations, reflections, and translations:

CCSS.MATH.CONTENT.8.G.A.1.A
Lines are taken to lines, and line segments to line segments of the same length.

CCSS.MATH.CONTENT.8.G.A.1.B
Angles are taken to angles of the same measure.

CCSS.MATH.CONTENT.8.G.A.1.C
Parallel lines are taken to parallel lines.

CCSS.MATH.CONTENT.8.G.A.2
Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.

CCSS.MATH.CONTENT.8.G.A.3
Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.

CCSS.MATH.CONTENT.8.G.A.4
Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.

CCSS.MATH.CONTENT.8.G.A.5
Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.

Define, evaluate, and compare functions.

CCSS.MATH.CONTENT.8.F.A.1
Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.

CCSS.MATH.CONTENT.8.F.A.2
Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a linear
function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.

CCSS.MATH.CONTENT.8.F.A.3
Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. For example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line.

**Use functions to model relationships between quantities.**

CCSS.MATH.CONTENT.8.F.B.4
Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two $(x, y)$ values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.

CCSS.MATH.CONTENT.8.F.B.5
Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally. Function notation is not required for Grade 8.

**Understand and apply the Pythagorean Theorem.**

CCSS.MATH.CONTENT.8.G.B.6
Explain a proof of the Pythagorean Theorem and its converse.

CCSS.MATH.CONTENT.8.G.B.7
Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.

CCSS.MATH.CONTENT.8.G.B.8
Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.

**Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.**

CCSS.MATH.CONTENT.8.G.C.9
Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.
The Long Loneliness: The Autobiography of the Legendary Catholic Social Activist

This inspiring and fascinating memoir, subtitled, “The Autobiography of the Legendary Catholic Social Activist,” The Long Loneliness is the late Dorothy Day’s compelling autobiographical testament to her life of social activism and her spiritual pilgrimage. A founder of the Catholic Worker Movement and longtime associate of Peter Maurin, Dorothy Day was eulogized in the New York Times as, “a nonviolent social radical of luminous personality.” The Long Loneliness recounts her remarkable journey from the Greenwich Village political and literary scene of the 1920s through her conversion to Catholicism and her lifelong struggle to help bring about “the kind of society where it is easier to be good.”

Available in Kindle and Paperback

Author: Dorothy Day
Paperback: 304 pages
Publisher: HarperOne (September 1, 2009)
Language: English
ISBN-10: 0060617519
Inventions: A Visual Encyclopedia

Author/Publisher: DK

Find out about the greatest inventions, inventors, ideas, and discoveries from ancient history to the modern day.

From the humble wheel to electricity, computers to robots, Inventions: A Visual Encyclopedia covers a range of areas organized by theme: transportation (including cars and bicycles), communication (such as pens, TVs, phones, and cameras); home (from toilet paper to microwave ovens); work (the lathe and the microscope), health (including vaccinations and prosthetic limbs); and space (inventions that were made for astronauts and that are now used on Earth, such as smoke alarms and memory foam). The book also includes galleries that contain a collection of related inventions on one spread, while profile spreads explore the lives of prolific inventors, such as Thomas Edison, or key inventive ages, from Ancient China to the Digital Revolution. This also helps young readers--the innovators and "disruptors" of tomorrow--to understand how a particular invention made an impact on society at a particular time and in the years after it was first put to use.

Age Range: 8 - 12 years

Grade Level: 3 - 7

Series: Visual Encyclopedia

Hardcover: 304 pages

Publisher: DK Children (July 10, 2018)

Language: English

ISBN-10: 1465458387

Riding the Rails: Teenagers on the Move During the Great Depression

During the Great Depression, more than 250,000 teenagers left their homes and hopped freight trains crisscrossing the United States. They were looking for work and adventure; some wanted to leave their homes, and some had to. They grew up in speeding boxcars, living in hobo jungles, begging on the streets, and running from the police and club-wielding railroad guards.

The restless youth of these boxcar boys and girls, many who went from 'middle-class gentility to dirt poor' overnight, is recaptured in Riding the Rails: Teenagers on the Move During the Great Depression. This unforgettable narrative dispels the myths of a hobo existence and reveals the hard stories of a daring generation of American teenagers - forgotten heroes - who survived some of the hardest times in our nation's history.

Drawn from 3,000 oral histories and illustrated with over fifty black and white photos from the National Archives and Library of Congress.

This book is available in free Kindle download through Amazon:

https://www.amazon.com/Riding-Rails-Teenagers-During-Depression/dp/0692302115/ref=sr_1_11?ie=UTF8&qid=1536062854&sr=8-11&keywords=Science+during+the+Great+Depression

Author: Errol Lincoln Uys
Publisher: T.E.Winter & Sons (October 10, 2014)
Language: English
ISBN-10: 0692302115