

ESTIMATING CONSTRUCTION COSTS

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What are the 5 cost estimates followed in construction? There are five main types of construction cost estimates: preliminary, detailed, quantity, bid, and control. Each is used for a different purpose at a different time in a project lifecycle.

How to estimate construction costs? What is the formula to calculate construction cost? To calculate the construction cost, you simply need to multiple your area value by the construction rate per square feet or square metre. The construction rate depends on various factors such as the plot's location, potential cost of labour and raw materials, etc.

How to calculate unit cost in construction? Unit cost estimating is a common method of calculating the cost of a construction project by multiplying the quantity of each work item by a unit price. It is widely used by contractors, engineers, architects, and owners for various purposes, such as budgeting, bidding, and controlling costs.

What is a construction estimator? Estimators calculate how much construction projects will cost, taking into account labour, material and equipment requirements. They will negotiate with suppliers and gain quotes from subcontractors and use this information to compile detailed cost proposals for a client.

What is the most reliable estimate in construction? The elemental cost estimate or elemental cost plan is a more accurate method and analysis of construction costs as it is based on further detailed drawings and specifications.

How accurate are construction estimates? Order of Magnitude: Rough estimate with 30%-50% margin of error. Feasibility: More detailed, used to decide if a project

is viable, with 15%-30% margin of error.

What is the rule of thumb for labor vs material? Generally, labor accounts for anywhere from 20-35% of total construction expenses, while materials account for 65-80%. However, if more skilled or specialized workers are needed, then the percentage of labor costs could rise as high as 40%.

Which cost is not considered in construction cost? A construction cost covers material, labor, equipment and services, contractor's overhead and profit and other direct construction costs. While, it does not cover compensation paid to the architect, consultant or engineers, cost of the land and other cost that is owner's responsibility.

What percentage of construction cost is labor? Construction labor costs: Fast facts According to the industry-standard Construction Labor Market Analyzer (CLMA), labor cost percentages in construction lie between 20% and 40% of the total project budget.

What are the disadvantages of estimation? All estimates at completion face the disadvantage of uncertainty, some stemming from the project itself and some stemming from assumptions. An estimate performed at the 10 percent mark of the project, for example, draws on far less known data than one performed at the 50 percent mark, making it far less reliable.

Who prepares the cost of estimation? A cost estimator is the professional who prepares cost estimates. There are different types of cost estimators, whose title may be preceded by a modifier, such as building estimator, or electrical estimator, or chief estimator.

What are the two most common types of construction cost estimates?

How to calculate construction cost? The cost of construction depends on the quality of material as well. Higher the quality, the higher the prices. The basic formula to calculate construction cost per square feet is: Cost of construction = area of plot x construction rate per sq ft.

Is construction estimating easy? Construction estimating is one of the most challenging, yet important jobs in our industry.

How to be the best construction estimator?

What are the 5 levels of cost estimation?

What are cost estimates of construction project? There are several types of construction cost estimates: Preliminary – The idea of the cost based on limited information. Plinth Area – The external dimensions of the structure, including the foundation type, roof construction, materials, and finishes. Cube Rate – The total building volume.

What are the four types of estimates in construction?

What are cost estimates for a project? What is a cost estimate? Project cost estimation is the process of predicting the quantity, cost, and price of the resources required by the scope of a project. Since cost estimation is about the prediction of costs rather than counting the actual cost, a certain degree of uncertainty is involved.

Terror and Insurgency in the Sahara-Sahel Region: A Complex Conundrum

Paragraph 1:

The Sahara-Sahel region, stretching across North and West Africa, has long been plagued by terrorism and insurgency. Intertwined factors such as poverty, weak governance, and cross-border conflicts have created a fertile ground for extremist groups like al-Qaeda and the Islamic State (ISIS). The region's porous borders facilitate illicit activities like contraband smuggling, further fueling instability.

Paragraph 2:

Corruption remains a significant challenge in the region, undermining rule of law and fueling grievances among marginalized communities. Vested interests within governments and security forces often collude with criminal networks, providing safe havens for terrorists and insurgents. This corruption compromises counter-terrorism efforts and deepens the cycle of violence.

Paragraph 3:

The Mali War of 2012-2013 was a watershed moment in the region's security landscape. It began with a rebellion by Tuareg separatists, but was hijacked by jihadist groups. The conflict displaced millions of people and created a power vacuum, allowing extremist groups to seize control of large swathes of territory.

Paragraph 4:

The international political economy of new regionalisms plays a complex role in the Sahara-Sahel region. Attempts at regional cooperation and integration face challenges due to competing interests and political dynamics. While initiatives like the G5 Sahel are aimed at addressing security threats, their effectiveness is often undermined by a lack of coordination and funding.

Paragraph 5:

Addressing the multifaceted challenges in the Sahara-Sahel requires a comprehensive approach. This includes tackling poverty, promoting good governance, combating corruption, and dismantling illicit networks. Regional cooperation and international support are crucial for stabilizing the region and preventing the resurgence of terrorism and insurgency.

Question and Answers:

- **What are the major causes of terrorism and insurgency in the Sahara-Sahel region?**
 - Poverty, weak governance, cross-border conflicts, porous borders, contraband smuggling, and corruption.
- **How does corruption contribute to instability in the Sahara-Sahel?**
 - It undermines rule of law, fuels grievances, and provides safe havens for terrorists and insurgents.
- **What role did the Mali War play in the region's security landscape?**
 - It created a power vacuum, allowing extremist groups to seize territory and deepen instability.

- **How does the international political economy of new regionalisms affect the Sahara-Sahel?**
 - Regional cooperation and integration efforts are often hindered by competing interests and political dynamics.
- **What is a comprehensive approach to addressing the challenges in the Sahara-Sahel?**
 - Tackling poverty, promoting good governance, combating corruption, dismantling illicit networks, and fostering regional cooperation and international support.

What is history of numbers in mathematics? Number systems have progressed from the use of fingers and tally marks, perhaps more than 40,000 years ago, to the use of sets of glyphs able to represent any conceivable number efficiently. The earliest known unambiguous notations for numbers emerged in Mesopotamia about 5000 or 6000 years ago.

What is the brief history of mathematics? Prehistoric Africans started using numbers to track time about 20,000 years ago. The Rhind Papyrus (1650 BCE) shows how ancient Egyptians worked out arithmetic and geometry problems in the first math textbook. Babylonian mathematicians were the first known to create a character for zero.

What are the branches of math? Among the principal branches of mathematics are algebra, analysis, arithmetic, combinatorics, Euclidean and non-Euclidean geometries, game theory, number theory, numerical analysis, optimization, probability, set theory, statistics, topology, and trigonometry.

What is maths full form? Maths is the short form of Mathematics.

Who decided what numbers look like? We can thank the ancient Egyptians for making the leap from using numbers to count to using them to measure things. Historians believe their use of numbers for measurement allowed the ancient Egyptians to build the pyramids and lay the foundation for advanced mathematics concepts, such as geometry.

What is the ancient study of numbers? Arithmomancy, also called arithmancy, from the Greek arithmos ("number") and manteia ("divination"), was practiced by the ancient Greeks, Chaldeans, and Hebrews; its successor is numerology.

What is the oldest evidence of math? We can trace back the origin of Mathematics to about 18,000 BC via the Ishango bone. The etchings on an Ishango bone are reminiscent of tally marks which is the system you'd use if you wanted to quickly count something.

When did math really begin? The study of mathematics as a "demonstrative discipline" began in the 6th century BC with the Pythagoreans, who coined the term "mathematics" from the ancient Greek ?????? (mathema), meaning "subject of instruction".

What are the four types of math? Algebra, Geometry, Calculus, and Statistics & Probability are considered to be the 4 main branches of Mathematics.

What's the hardest branch of math? What is the hardest branch of math? The hardest branch of math is subjective; often, Abstract Algebra or Topology are considered the most challenging due to their complexity.

What is the oldest branch of math? Arithmetic: It is the oldest and the most elementary among other branches of mathematics. It deals with numbers and the basic operations- addition, subtraction, multiplication, and division, between them. Algebra: It is a kind of arithmetic where we use unknown quantities along with numbers.

What is the highest form of mathematics? A doctoral degree is the highest level of education available in mathematics, often taking 4-7 years to complete. Like a master's degree, these programs offer specializations in many areas, including computer algebra, mathematical theory analysis, and differential geometry.

What does m stand for in mathematics? The basic unit of length is the meter and is denoted as. In geometry, can be used as a variable to denote a line and can be used to name a point. In algebra, denotes the slope of a line in the equation $y = m x + c$. In statistics, is used to denote the arithmetic mean.

Why is math called math? Etymology. The word mathematics comes from Ancient Greek μάθημα (máthēma), meaning "that which is learnt", "what one gets to know", hence also "study" and "science". The word came to have the narrower and more technical meaning of "mathematical study" even in Classical times.

Who is called the father of mathematics? Archimedes is widely regarded as one of the greatest mathematicians in history, earning him the title of the "Father of Mathematics." Born in Syracuse, Sicily, in 287 BC, Archimedes was a polymath who made significant contributions to a wide range of fields, including mathematics, physics, engineering, and astronomy.

What is the last number in the world? There is no biggest, last number ... except infinity. Except infinity isn't a number. But some infinities are literally bigger than others.

Who found zero? Aryabhata, a great astronomer of the classic age of India was the one who invented the digit "0" (zero) for which he became immortal but later on is given to Brahmagupta who lived around a century later 22, another ancient Indian mathematician.

What is the oldest number system in the world? What is the oldest number system? The oldest number system in the world is the Babylonian number system. This system used a series of wedge marks on cuneiform tablets to represent numbers.

What is the Bible study of numbers? Biblical numerology is the use of numerology in the Bible to convey a meaning outside of the numerical value of the actual number being used. Numerological values in the Bible often relate to a wider usage in the Ancient Near East.

What is the oldest number? Common intuition, and recently discovered evidence, indicates that numbers and counting began with the number one. (Even though in the beginning, they likely didn't have a name for it.) The first solid evidence of the existence of the number one, and that someone was using it to count, appears about 20,000 years ago.

What is the most ancient math? The earliest form of mathematics that we know is counting, as our ancestors worked to keep track of how many of various things they had. The earliest evidence of counting we have is a prehistoric bone on which have been marked some tallies, which sometimes appear to be in groups of five.

What's the hardest math question in history? 1. Riemann Hypothesis. The Riemann Hypothesis, proposed by Bernhard Riemann in 1859, is a central problem in number theory, and discusses the distribution of prime numbers. The hypothesis focuses on the zeros of the Riemann zeta function.

What is the oldest unsolved problem in number theory? Goldbach's conjecture is one of the oldest and best-known unsolved problems in number theory and all of mathematics. It states that every even natural number greater than 2 is the sum of two prime numbers.

What was the first thing invented in maths? Around 3000 BCE, the Sumerians developed a numerical system based on the sexagesimal system (base 60), which is still in use for measuring time (seconds, minutes, and degrees in a circle) today. They also made strides in geometry, algebra, and arithmetic.

What does \wedge mean in math? \wedge is (most often) the mathematical symbol for logical conjunction, which is equivalent to the AND operator you're used to. Similarly \vee is (most often) logical disjunction, which would be equivalent to the OR operator.

Who came up with the number? Numerals. Numbers should be distinguished from numerals, the symbols used to represent numbers. The Egyptians invented the first ciphered numeral system, and the Greeks followed by mapping their counting numbers onto Ionian and Doric alphabets.

Which country contributed most to mathematics? Scholars from the United States are dominating the ranking with 458 scientists representing 45.8% of all leading mathematics scientists.

What is the history of number theory in math? History of Number Theory Number theory, originating in ancient Mesopotamia circa 1800 BC with Plimpton 322's discovery, encompasses Pythagorean triplets and Babylonian astronomy. Pythagoras furthered this with his triplets, influencing Euclid's postulates in geometry

and arithmetic.

Who discovered the concept of numbers? Answer and Explanation: Archaeological remains that are tens of thousands of years old have been found that represent rudimentary markings systems. However, the first true system of numbers was invented by the Sumerians in about 3400 BC. No one known the name of the person who invented this system.

Who started the numbering system that we use? The most commonly used system of numerals is decimal. Indian mathematicians are credited with developing the integer version, the Hindu–Arabic numeral system. Aryabhata of Kusumapura developed the place-value notation in the 5th century and a century later Brahmagupta introduced the symbol for zero.

What is the history of whole numbers? Pythagoras and Archimedes are credited for the first study of whole numbers as they are defined today. Before these Greek philosophers, the discovery of whole numbers has been credited to ancient Egyptian, Chinese, and Indian civilizations.

Who invented the number 1 to 9? Hindu-Arabic numerals, set of 10 symbols—1, 2, 3, 4, 5, 6, 7, 8, 9, 0—that represent numbers in the decimal number system. They originated in India in the 6th or 7th century and were introduced to Europe through the writings of Middle Eastern mathematicians, especially al-Khwarizmi and al-Kindi, about the 12th century.

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What branch of mathematics is number theory? number theory, branch of mathematics concerned with properties of the positive integers (1, 2, 3, ...). Sometimes called “higher arithmetic,” it is among the oldest and most natural of mathematical pursuits. Number theory has always fascinated amateurs as well as professional mathematicians.

Who's idea was it to put numbers in math? The Egyptians invented the first ciphered numeral system, and the Greeks followed by mapping their counting numbers onto Ionian and Doric alphabets.

When did humans start using numbers? 50,000 YEARS... The idea of numbers goes back long before recorded history began, as some archaeological evidence suggests that humans were counting as far back as 50,000 years ago.

Who decided the names of numbers? The names for numbers is specific to a language, so there's no definitive answer.

Who was the first person to use numbers? Numbers, and counting, began about 4,000 BC in Sumeria, one of the earliest civilizations. With so many people, livestock, crops and artisan goods located in the same place, cities needed a way to organize and keep track of it all, as it was used up, added to or traded.

What is the oldest number system in the world? What is the oldest number system? The oldest number system in the world is the Babylonian number system. This system used a series of wedge marks on cuneiform tablets to represent numbers.

Who invented the natural number in maths? Answer: The ancient Egyptians added to this system to include all the powers of 10 up to one million. Natural numbers were first studied seriously by such Greek philosophers and mathematicians as Pythagoras (582–500 BC) and Archimedes (287–212 BC).

Why is 23 not a natural number? Which numbers are not natural and why? The first number, 33, is a natural number. The second number, 23, isn't because it is a fraction. The third, ?8, isn't because it's negative.

Did numbers come before language? Is it possible to think of something without first having a word for it? In the realm of numbers, say cognitive scientists, it is.

What is the orange and white bot's name in Star Wars The Force awakens '? BB-8 was mostly white, with some silver and orange on his body, as well as a black photoreceptor. The droid belonged to Resistance pilot Poe Dameron, whom he accompanied during his flights on his T-70 X-wing starfighter.

What happens at the end of The Force Awakens? Rey awakens, takes the lightsaber, and defeats Kylo in a duel. Snoke orders Hux to evacuate and bring Kylo to him to complete his training. Chewbacca saves Rey and the injured Finn, and they escape aboard the Falcon. As the Resistance forces flee, Starkiller Base implodes and erupts into a star.

Why is BB-8 so cute? The real reason why we love cute things – many of which clearly don't resemble babies – is that their features act as supernormal stimuli. And so it's the super-childish beeps, bumbling behavior and round body that makes you think BB-8 is cute.

Is BB-8 a boy or a girl? Another little girl wonders if BB-8 is a boy or a girl. “I don't know if we ever found out if BB-8 is a boy or a girl,” says Ridley. “Oooh, that's a really good question,” says Keri Russell and asks Oscar Isaac for his assessment. “Definitively a boy.

How did Finn survive Kylo Ren? During the attack, he was defeated and nearly killed by the dark warrior Kylo Ren. Rescued by Rey and Chewbacca, Finn recuperated from his injuries and by the time he awoke, the Resistance was forced to evacuate their base on D'Qar.

Why did Rey bury the lightsabers at the end? Why Did Rey Bury the Lightsabers? Since Luke and Leia, her masters, have become one with the Force, this is her way of honoring them by putting their weapons to rest. It also shows that Rey is burying the past while carrying it with her — both in her spirit and in the lightsaber she now wields.

Is Rey Luke's daughter? Born on the planet Hyperkarn in 15 ABY, Rey was the daughter of Dathan and Miramir. While their names were lost to history, Rey's father

was the cloned son—an artificial genetic strandcast—of the resurrected Darth Sidious, making her the granddaughter of the fallen Galactic Emperor and Dark Lord of the Sith.

What is the oldest droid in Star Wars?

Is BB-8 real or CGI? To that end, the droid BB-8 was a physical prop developed by Disney Research, created by Neal Scanlan and operated live on set with the actors.

Who does Han Solo take Rey and BB-8 to see? Han Solo : [BB-8 shows Han, Finn, and Rey the map to Luke Skywalker] This map's not complete. It's just a piece. Ever since Luke disappeared, people have been looking for him. Rey : Why did he leave?

What does C-3PO stand for? They aren't abbreviations — they're model and serial numbers. R2 is a second generation R-series astromech, serial number D2. * And C-3PO is a C-series protocol droid with the serial number 3PO. *And likely several more numbers that get dropped for the sake of time.

Is R2-D2 a girl? Note: Canon sources are mixed as to whether R2-D2 has a gender, but Wallace (an official source) indicates that the droid has masculine programming.

Why did BB-8 stay with Rey? The droid was also taken hostage on Jakku by a scavenger before being rescued by Rey. BB-8 then stood by Rey's side, trusting her for the duration of the trilogy. The fact that the droid was once again with its rescuer after a series of tumultuous events served as a symbolic full-circle moment.

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