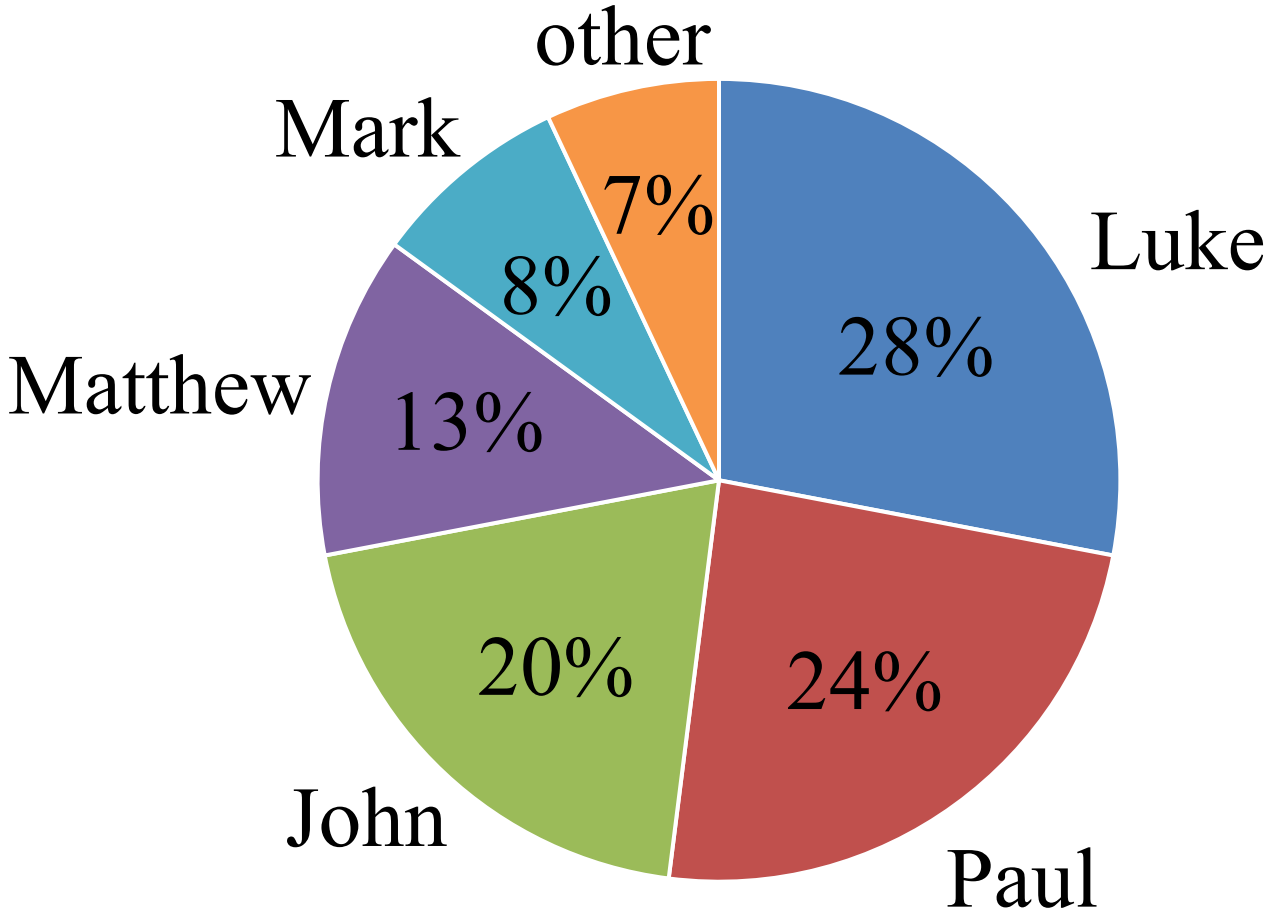
Ma✝h & the Biblε

Joe Vasta
Ph.D., Mathematics

Who wrote the largest part of the New Testament?



Why the Bible?

Answer: It's unique in…

1. Continuity 66 >40 1500 3 3
2. Circulation >5,000,000,000 38
3. Translation >700 >1500
4. Prophecies predictions about the future
5. History BC AD
6. Character
7. Influence on Literature & Civilization
8. Survival through Time, Persecution, and Criticism.

Pontius Pilate
1961

King David 1993

Isaiah 2018

Matthew 20	leaving Jericho
Mark 10	leaving Jericho
Luke 18	entering Jericho

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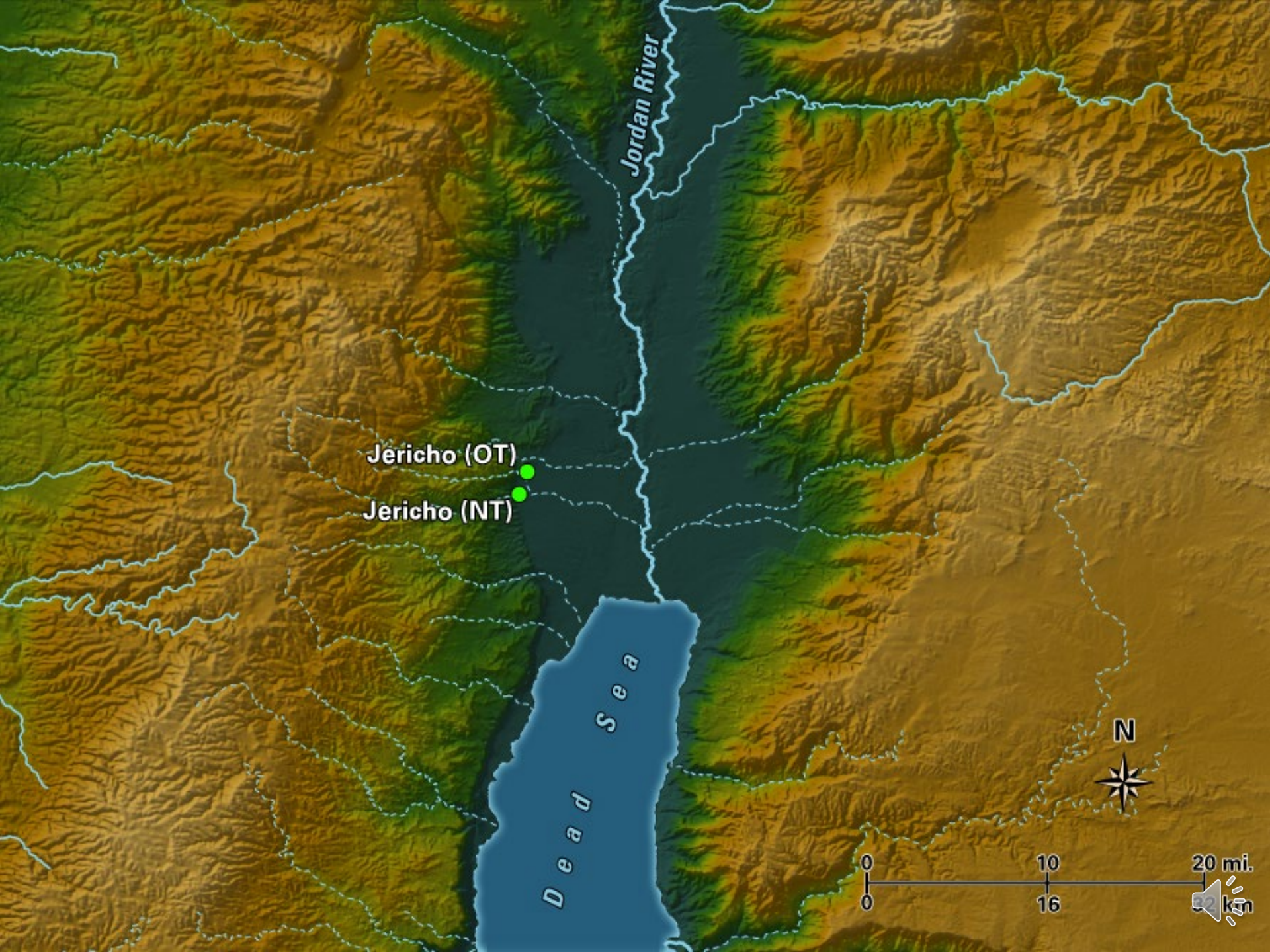
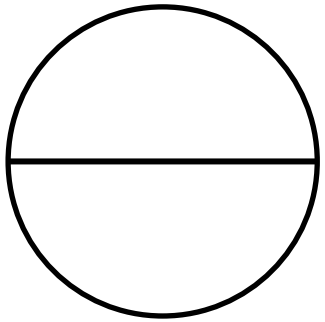
CC 3.


Jordan River
Jericho (OT)
Jericho (NT)
Dead Sea
N
0
10
20 mi.
0
16
32 km

Does the Bible say that $\pi = 3$?

This information is found in the paper, “On the Rabbinical Approximation of π” by Boaz Tsaban and David Garber.

$$\frac{\text{circumference}}{\text{diameter}} = \pi = 3.14159265358979323...$$



1st Kings 7:23

And he made a molten sea, **ten** cubits from the one brim to the other: it was round all about, and his height was five cubits: and a line of **thirty** cubits did compass it round about.

1st Kings 7:23 $\rightarrow$ $\frac{\text{circumference}}{\text{diameter}} = \frac{30}{10} = 3$

Is this an error in the Bible?

The Book of Kings was edited by the ancient Jews as religious work about 550 B.C., but its sources date back several centuries. At that time, π was already known to a considerably better accuracy, but evidently not to the editors of the Bible…The 'people of the world' say $\pi = 3\ 1/7$, but the scriptures say $\pi = 3$.

A History of π, Petr Beckmann, 1971

original Hebrew text used a variation of the word “circumference”

קוה (qaveh)

marginal annotation had a common spelling of “circumference”

קו (qav)

Aleph	א	1
Bet	ב	2
Gimmel	ג	3
Dalet	ד	4
Hey	ה	5
Vav	ו	6
Zayin	ז	7
Chet	ח	8
Tet	ט	9
Yod	י	10
Kaf	כ, ך	20

Lamed	ל	30
Mem	מ, ם	40
Nun	נ, ן	50
Samekh	ס	60
Ayin	ע	70
Pey	פ, ף	80
Tsade	צ, ץ	90
Qof	ק	100
Resh	ר	200
Shin	ש	300
Tav	ת	400

$$ה = 5,\quad ו = 6,\quad ק = 100$$

$$\frac{ה+ו+ק}{ו+ק} \qquad \frac{111}{106} \quad \leftarrow \quad \text{adjustment ratio}$$

circumference of thirty cubits

$$\frac{111}{106} \times 30 \approx 31.4150943$$

$$1^{st}\ \text{Kings } 7{:}23 \rightarrow \frac{\text{circumference}}{\text{diameter}} \approx \frac{31.4150943}{10} = 3.14150943$$

absolute error < 0.00009

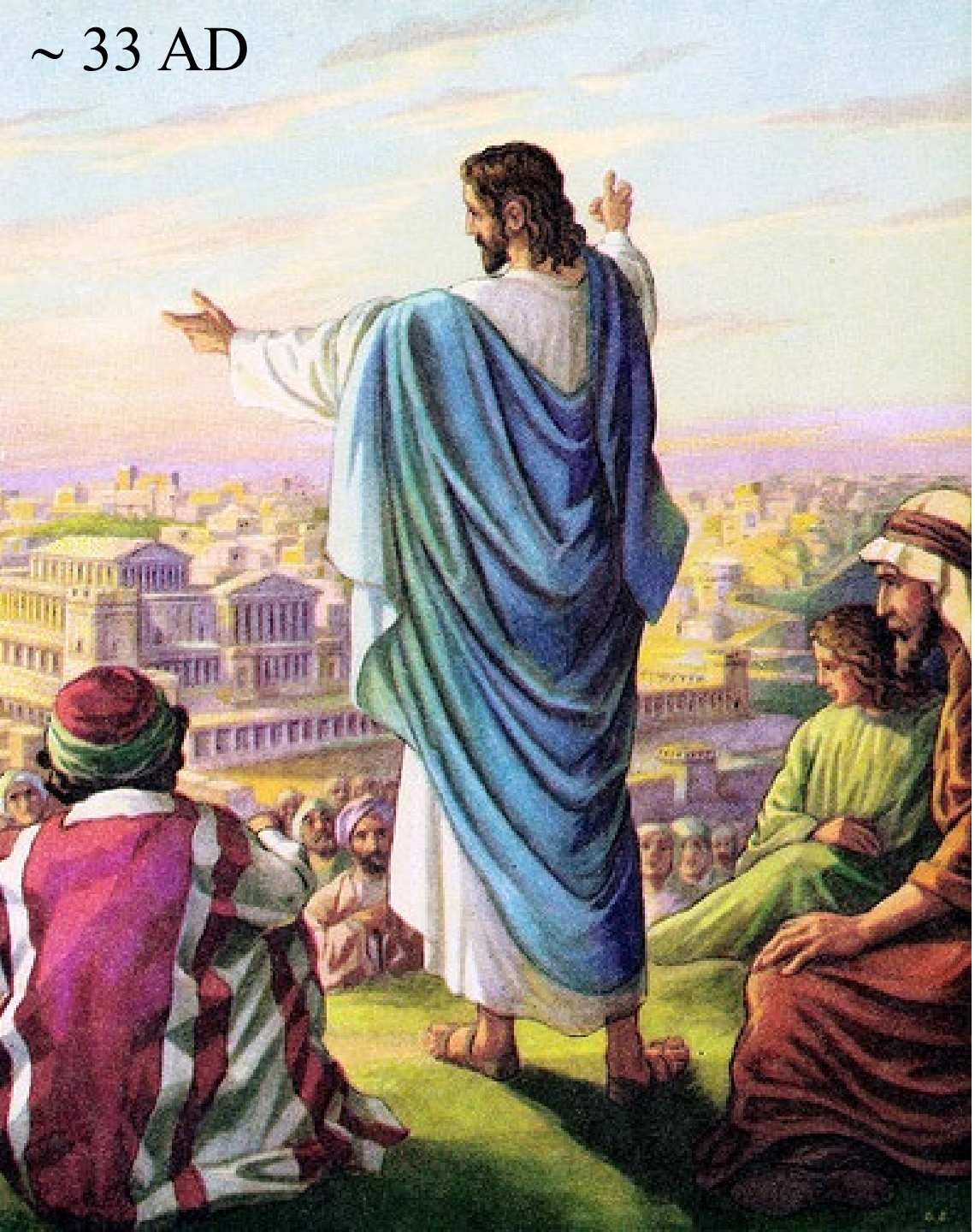
1st Kings 7:23 $\rightarrow$ 3.14150943 (6th century B.C.)

"the people of the world" $\rightarrow$ 3.14285714

This biblical accuracy of π was not obtained
until the 5th century A.D. in China.

This was more accurate than Fibonacci's approximation of π.
(13th century A.D.)

Europe didn't achieve this accuracy until after the 14th century A.D.

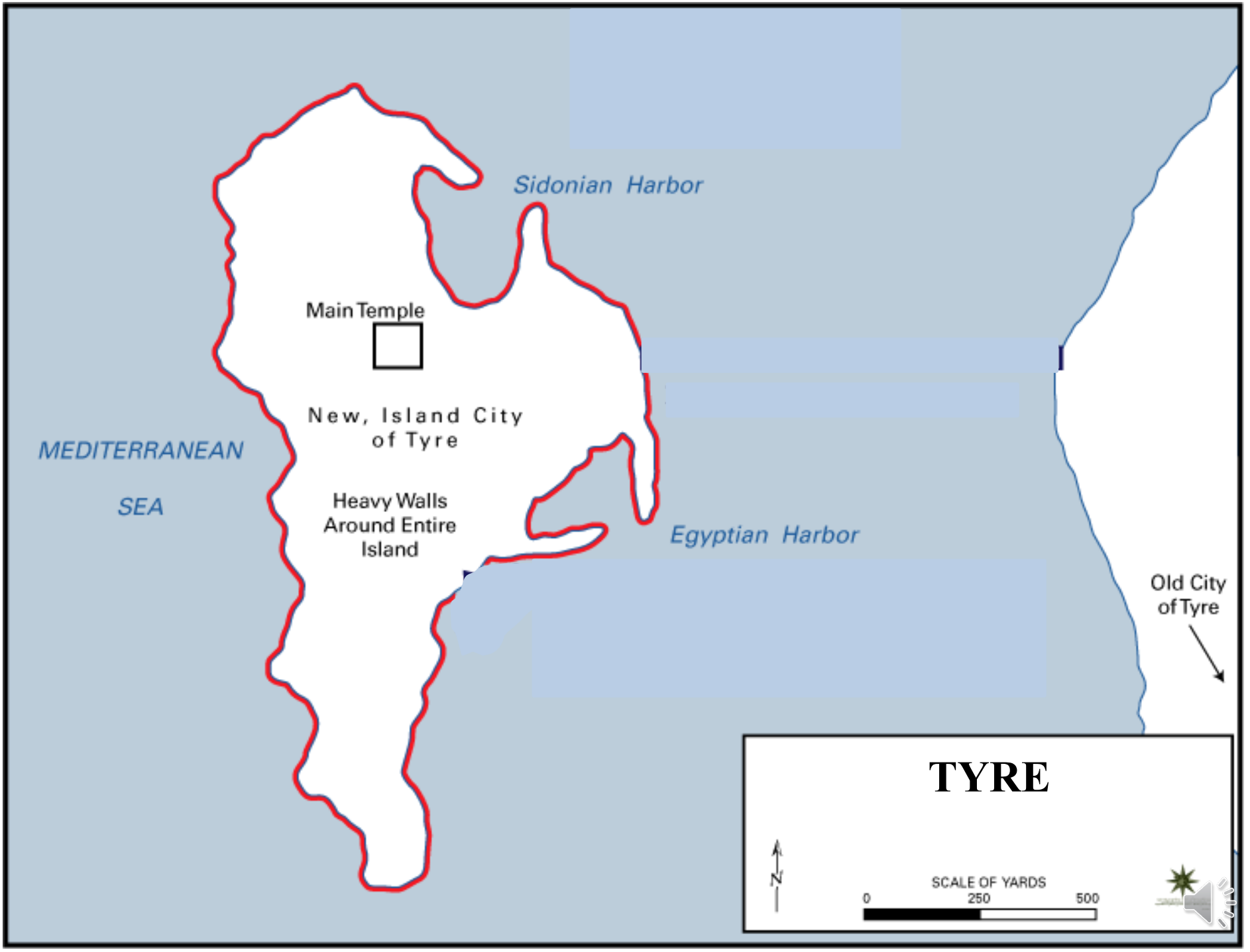


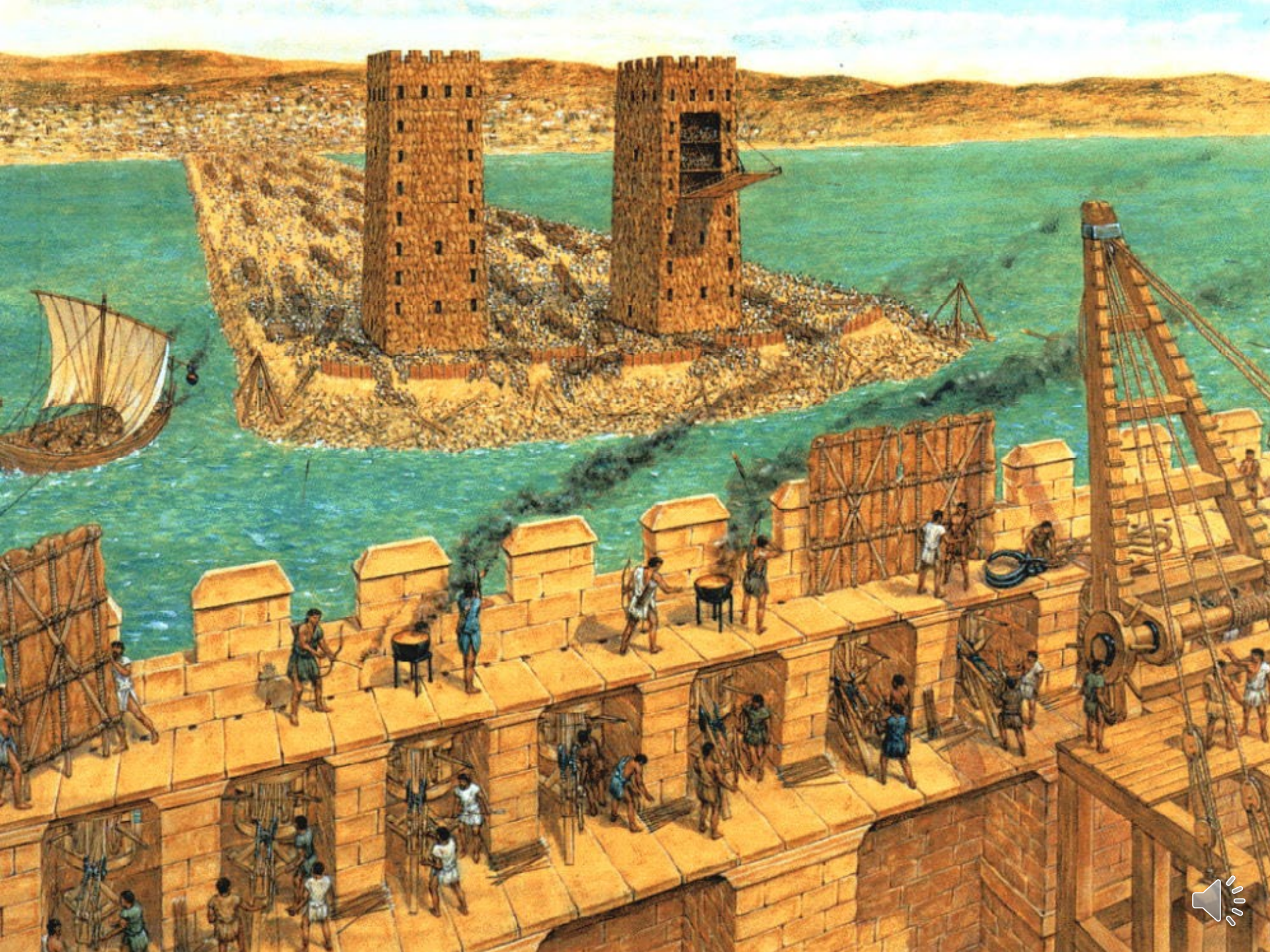
Then Jesus went out and departed from the temple, and His disciples came up to show Him the buildings of the temple. And Jesus said to them, "Do you not see all these things? Assuredly, I say to you, not one stone shall be left here upon another, that shall not be thrown down."

– Matt. 24:1-2

70 AD

Carthage
Arwad (Arvad)
Byblos (Gebal)
Sidon
Tyre


Sidonian Harbor
Main Temple
New, Island City of Tyre
MEDITERRANEAN SEA
Heavy Walls Around Entire Island
Egyptian Harbor
Old City of Tyre
TYRE
N
SCALE OF YARDS
0
250
500



Europe
Media
Asia
Cassander
Lysimachus
Seleucus
Greek Empire
Divisions
Africa
Arabia
Ptolemy
© Teachingheart.org

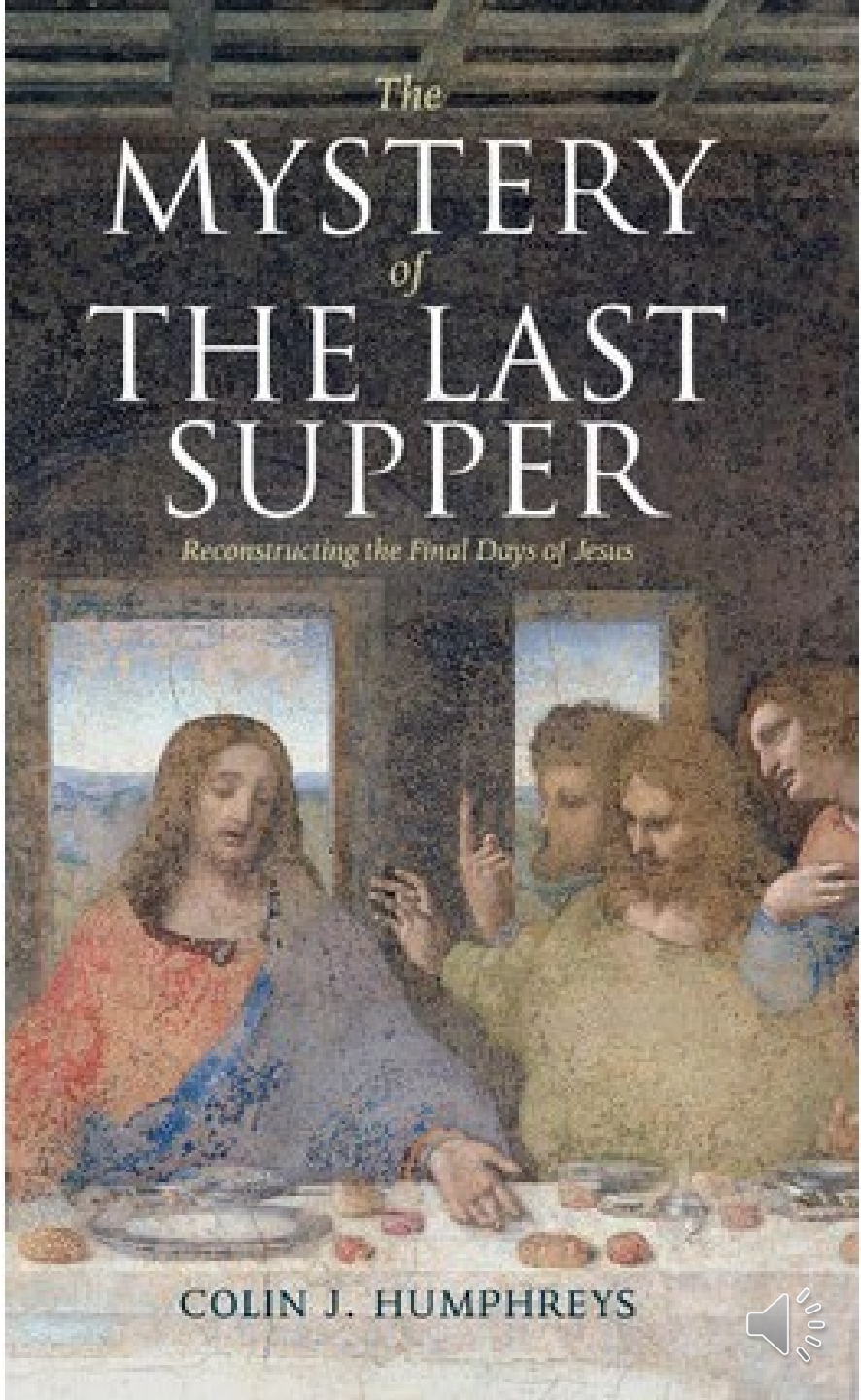
Revelation 13:16-17

He causes all, both small and great, rich and poor, free and slave, to receive a mark on their right hand or on their foreheads, and that no one may buy or sell except one who has the mark or the name of the beast, or the number of his name.

70 Weeks

In 1983 Cambridge physicist Sir Colin Humphreys, working with Oxford astrophysicist Graeme Waddington, calculated that Jesus died on April 3, 33 AD.

You can find this information in the 2011 book titled, “The Mystery of The Last Supper.”



The Prophet Daniel

605 BC: Daniel was taken captive from Jerusalem to Babylon.

586 BC: Jerusalem destroyed.

539 BC: Persian Empire conquered Babylonian Empire.

Daniel Chapter 9

"Seventy weeks are determined for your people and for your holy city . . . know therefore and understand, that from the going forth of the command to restore and build Jerusalem until Messiah the Prince, there shall be seven weeks and sixty-two weeks . . . and after the sixty-two weeks Messiah shall be cut off, but not for Himself."

70 weeks = 7 weeks + 62 weeks + 1 week

$7 + 62 =$ **69 “weeks”**

1 decade = 10 consecutive years

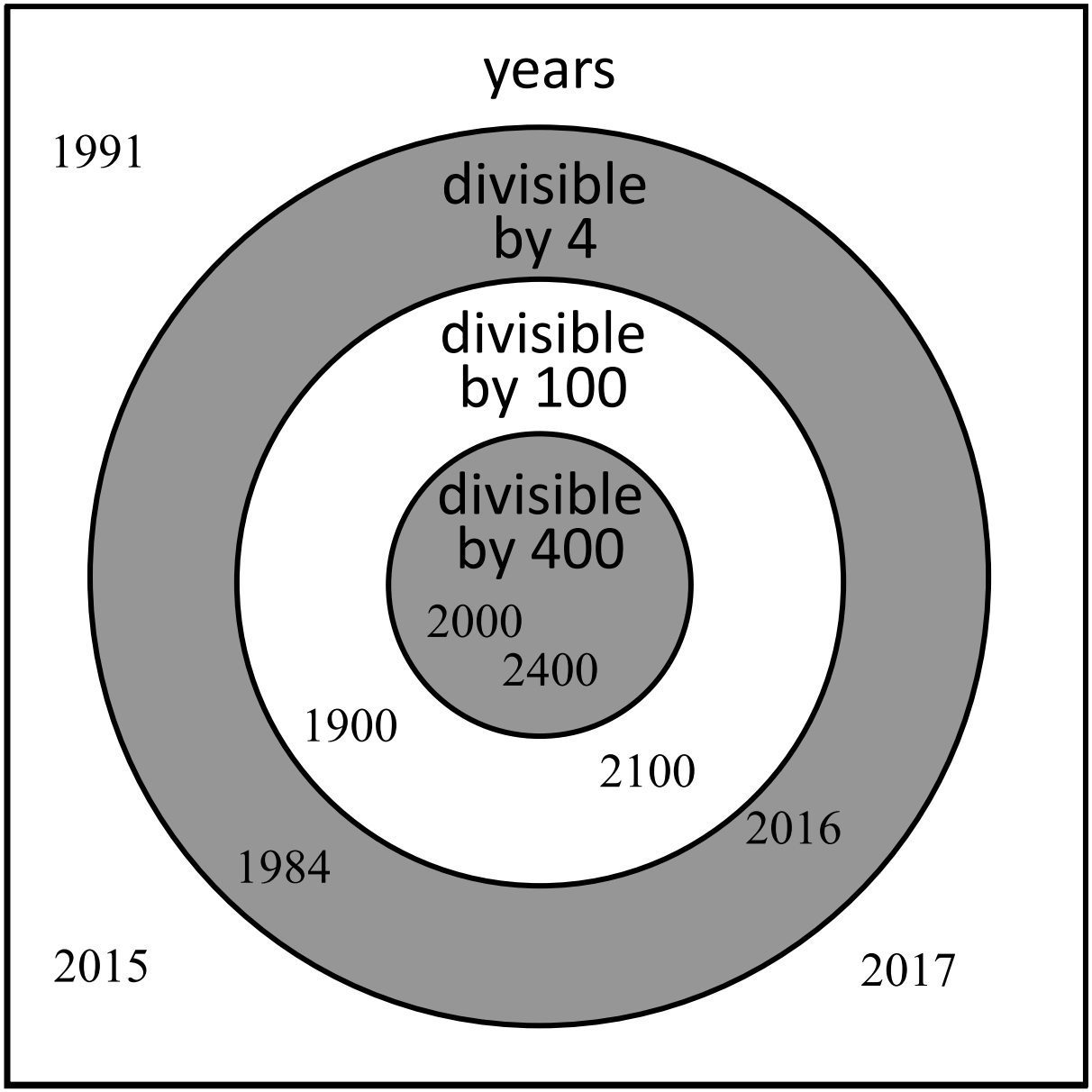
1 “week” = 7 consecutive years

1 year $\approx$ 365 days, 5 hours, 48 minutes, 45 seconds

$\approx$ 365.24219 days

1 solar year

Leap Years – Gregorian Calendar



Gregorian Year = 365.2425 days

69 “weeks”

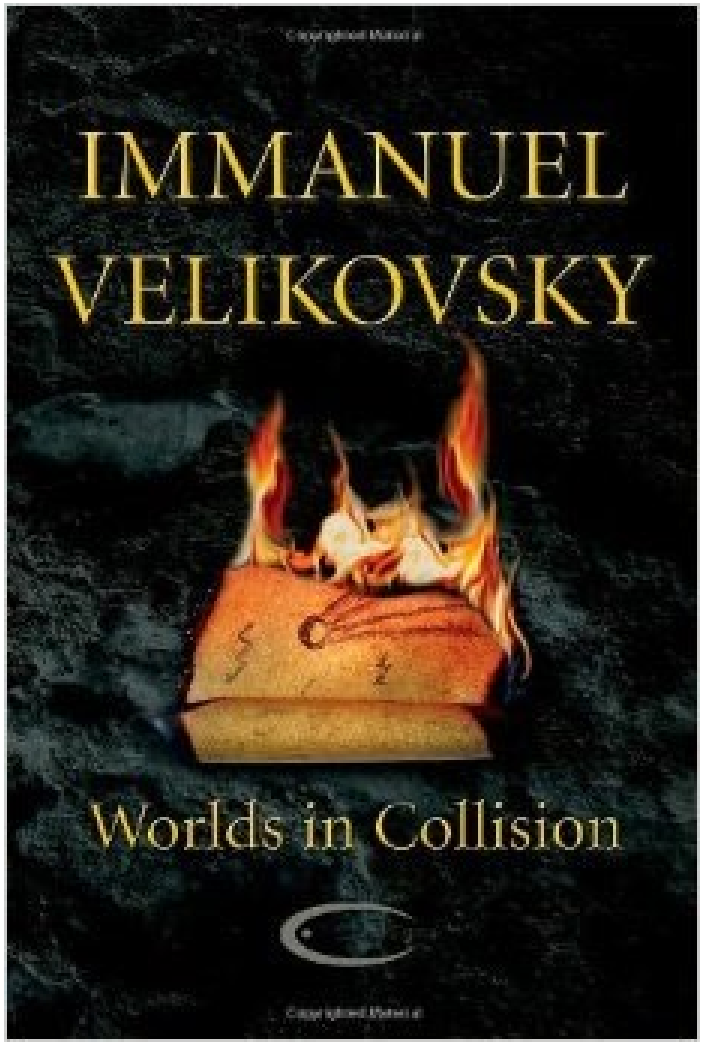
1 “week” = 7 years

1 year ≈ 365.24219 days

1 Jewish year = 360 days

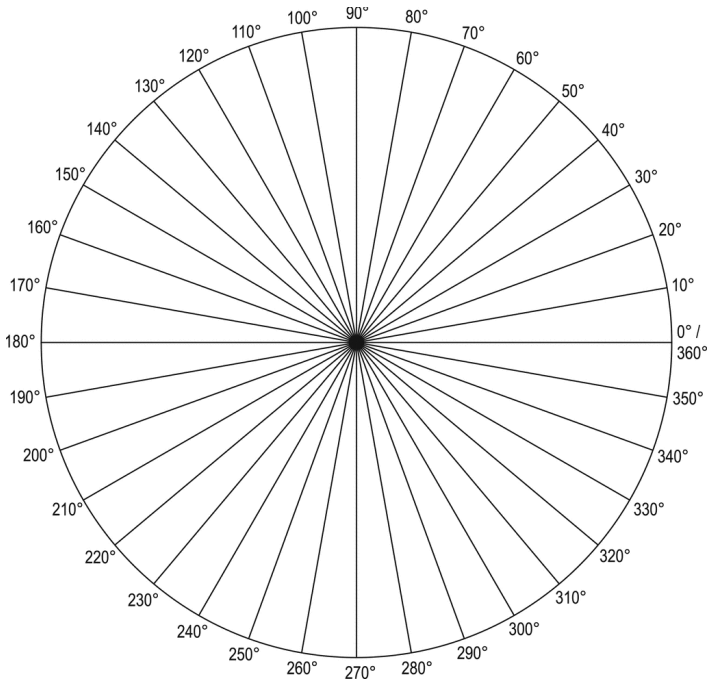
↑

What?



From 15th to 8th centuries BC, people used 360-day years.

Incas
Mayas
Egyptians
Persians
Hindus
Chaldeans
Assyrians
Hebrews
Chinese
Greeks
Romans



69 “weeks”

1 “week” = 7 years

1 Jewish year = 360 days

69 “weeks” = 69 × 7 × 360 = 173,880 days

6th century BC – Daniel 9 contains prediction about the future

counts the time between 2 events

1. the command to rebuild Jerusalem
2. the Messiah being "cut off"

173,880 days

March 5, 444 BC or a little after

Artaxerxes issued a decree to rebuild Jerusalem.

1 March 6	2 March 7	3 March 8	4 March 9	5 March 10	6 March 11	7 March 12
8 March 13	9 March 14	10 March 15	11 March 16	12 March 17		

March 5, 444 BC + 173,880 days = ?

$173{,}880 \div 365.24219 \approx 476.06767$ years

$\approx$ 476 years & 25 days

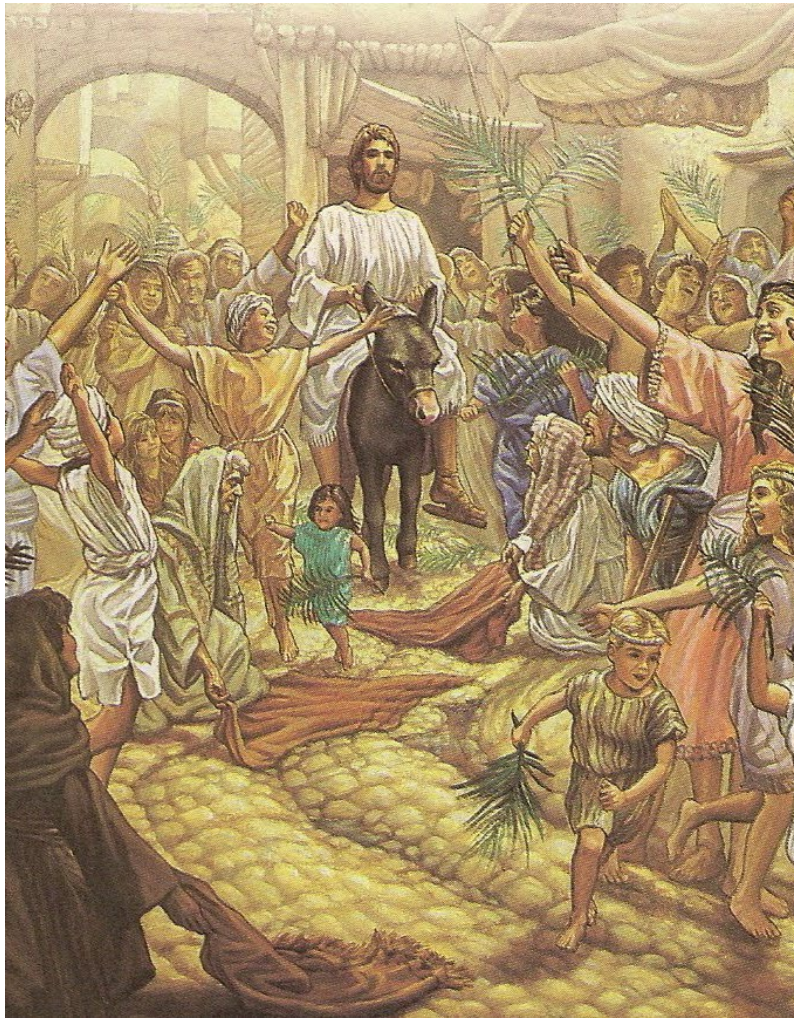
10 BC + 20 years = 11 AD

March 5, 444 BC + 476 years = March 5, 33 AD

Add 25 days.

March 30, 33 AD

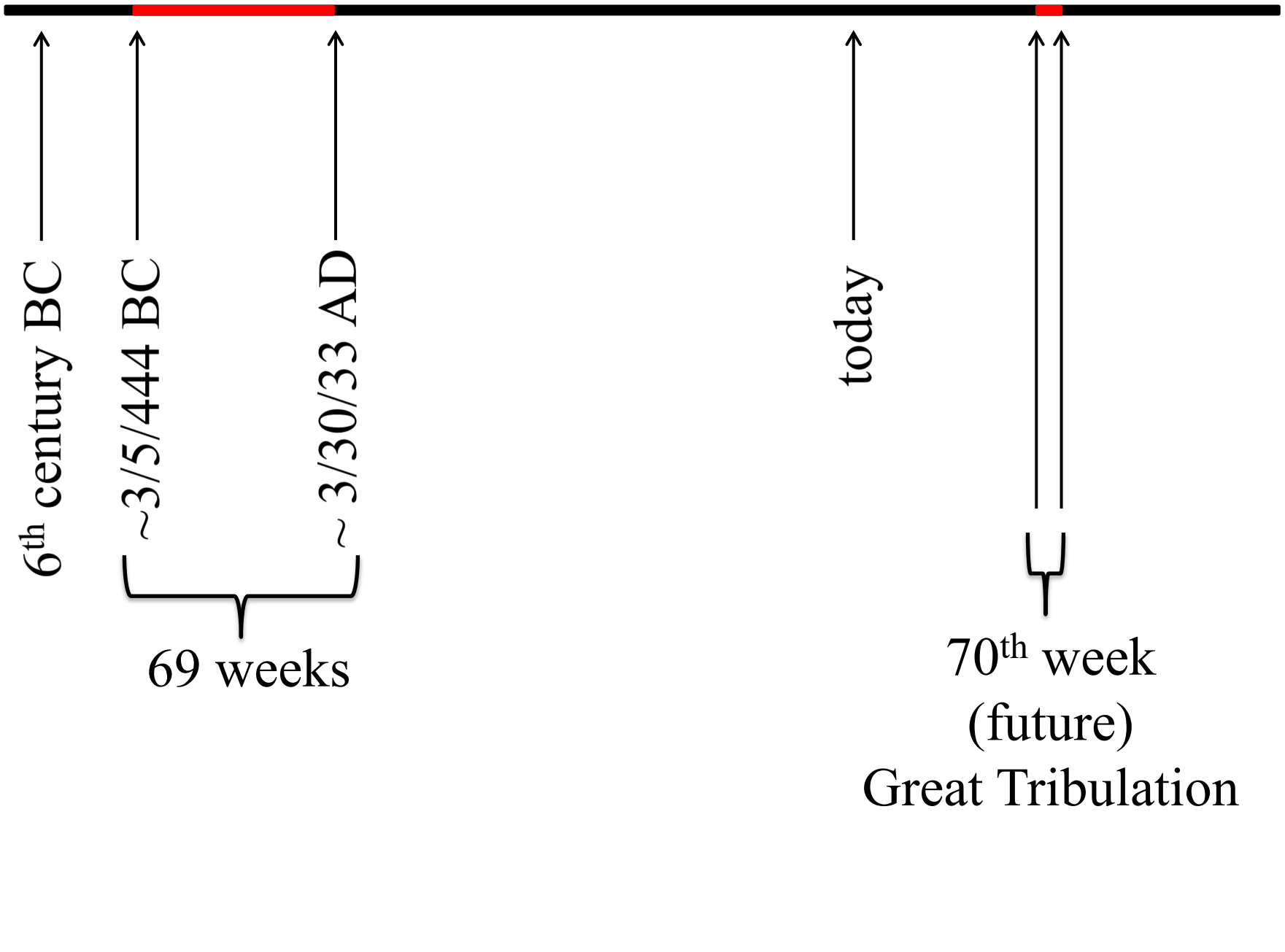
March 30, 33 AD



Jesus entered Jerusalem

April 3, 33 AD

Jesus crucified


6th century BC
~3/5/444 BC
~ 3/30/33 AD
69 weeks
today
70th week
(future)
Great Tribulation

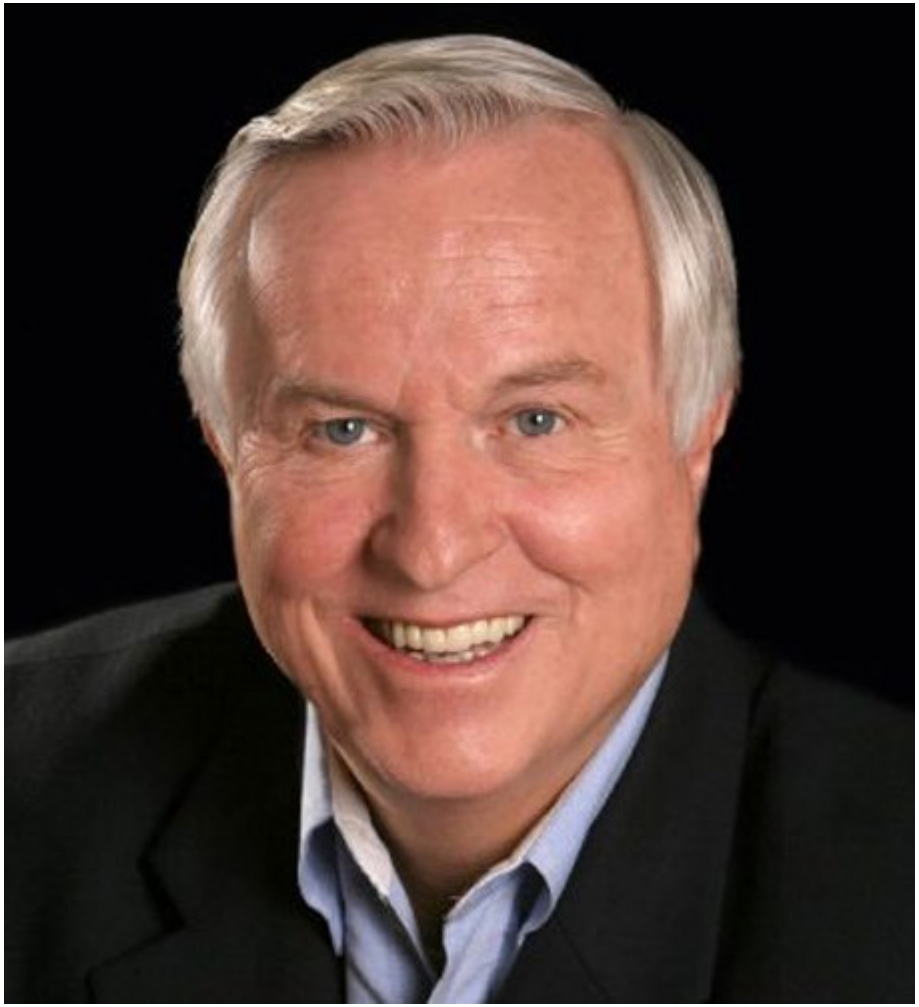
Messianic Prophecies

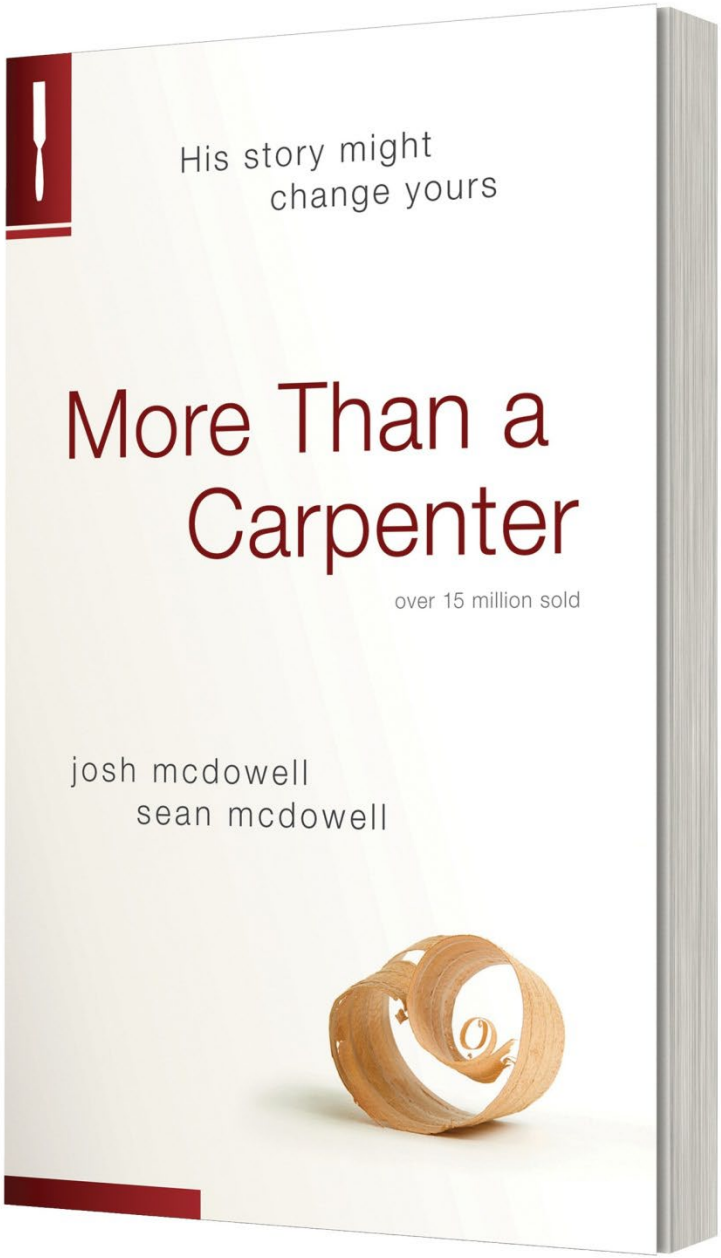
1. Jesus did walk on this earth 2000 years ago.

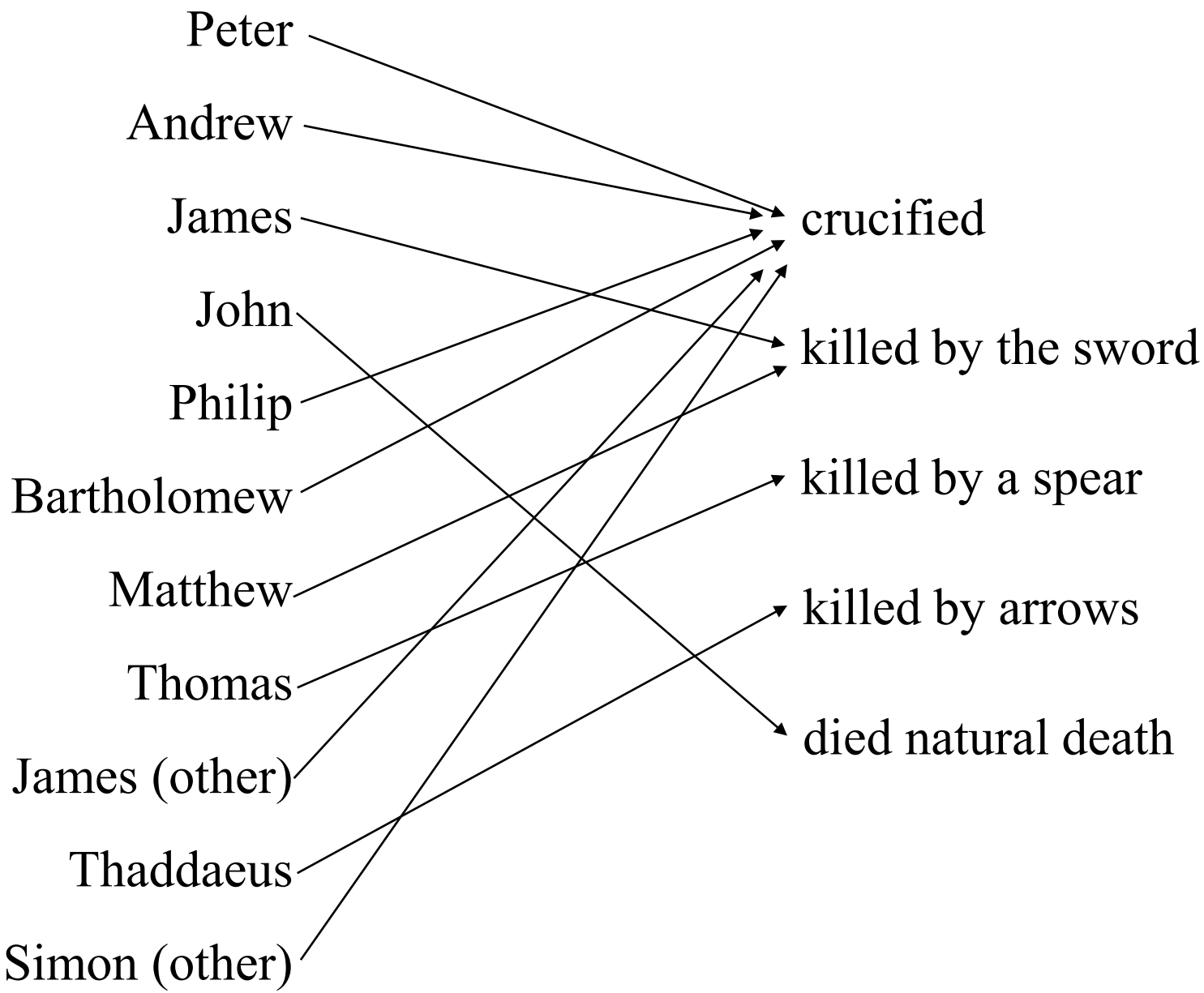
2. Jesus appeared on the scene hundreds of years after the prophecies were written down in the Old Testament.

3. The New Testament is reliable, and this can be verified.

Josh McDowell






Peter
Andrew
James
John
Philip
Bartholomew
Matthew
Thomas
James (other)
Thaddaeus
Simon (other)
crucified
killed by the sword
killed by a spear
killed by arrows
died natural death

Professor Peter Stoner

The Messiah will be betrayed for 30 pieces of silver (Zechariah 11:12).

$$\cancel{\frac{1}{10{,}000}} \qquad \frac{1}{1000}$$

The Messiah will be born in Bethlehem (Micah 5:2).

$$\frac{1}{100,000}$$

A messenger will prepare the way for the Messiah (Malachi 3:1).

$$\frac{1}{1000}$$

The Messiah will enter Jerusalem as a king riding on a donkey (Zechariah 9:9).

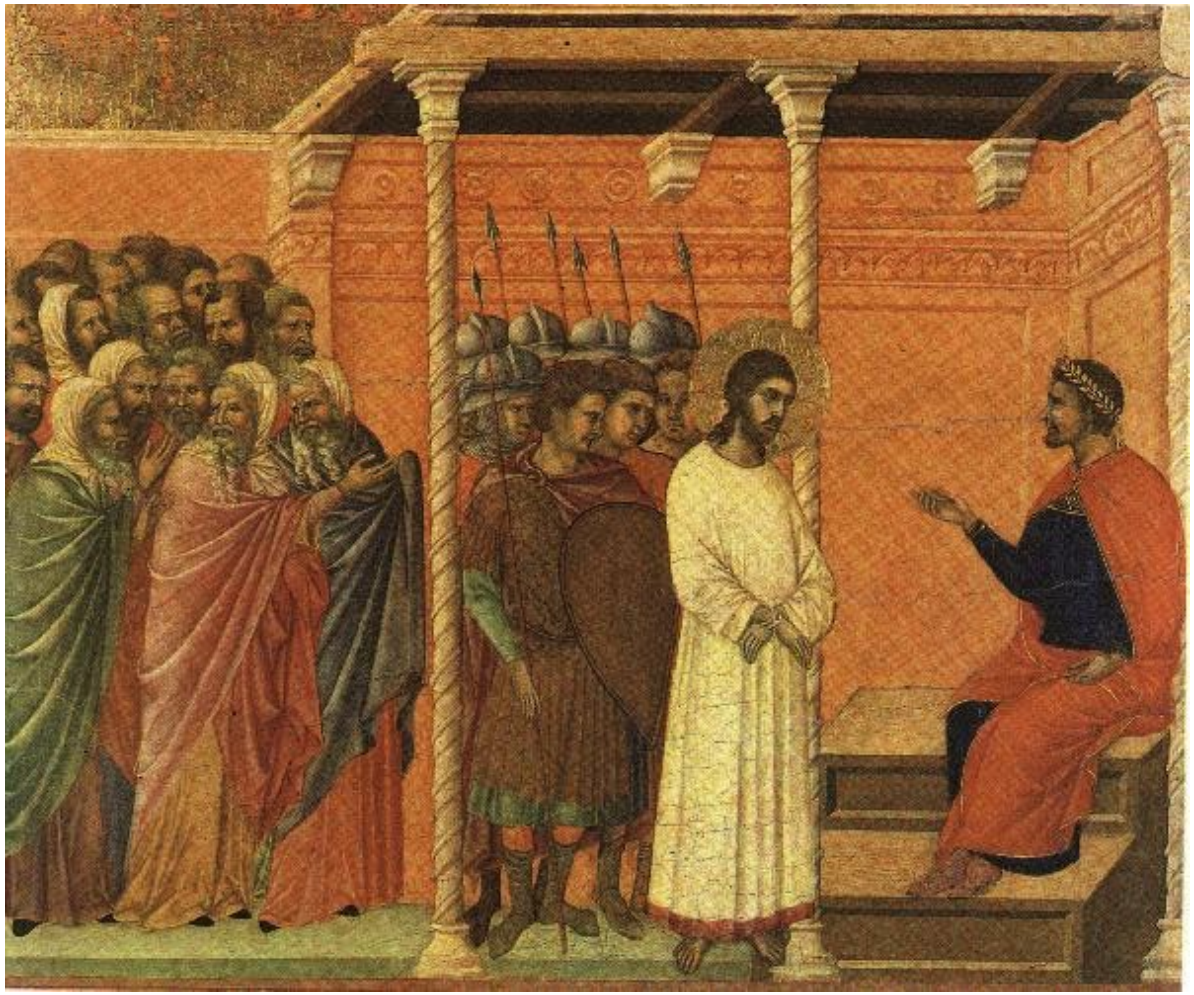
The Messiah will be betrayed by a friend & suffer wounds in His hands (Zechariah 13:6).

$$\frac{1}{1000}$$

The betrayal money will be thrown down in the house of the Lord & will go to the potter (Zechariah 11:13).

$$\frac{1}{100,000}$$

The Messiah will remain silent while He is afflicted (Isaiah 53:7).



$$\frac{1}{1000}$$

The Messiah will die having His hands and feet pierced (Psalm 22:16).

$$\frac{1}{10,000}$$

$$\frac{1}{1000} \cdot \frac{1}{100{,}000} \cdot \frac{1}{1000} \cdot \frac{1}{100} \cdot \frac{1}{1000} \cdot \frac{1}{100{,}000} \cdot \frac{1}{1000} \cdot \frac{1}{10{,}000}$$

$$= \frac{1}{10{,}000{,}000{,}000{,}000{,}000{,}000{,}000{,}000} = \frac{1}{10^{28}}$$

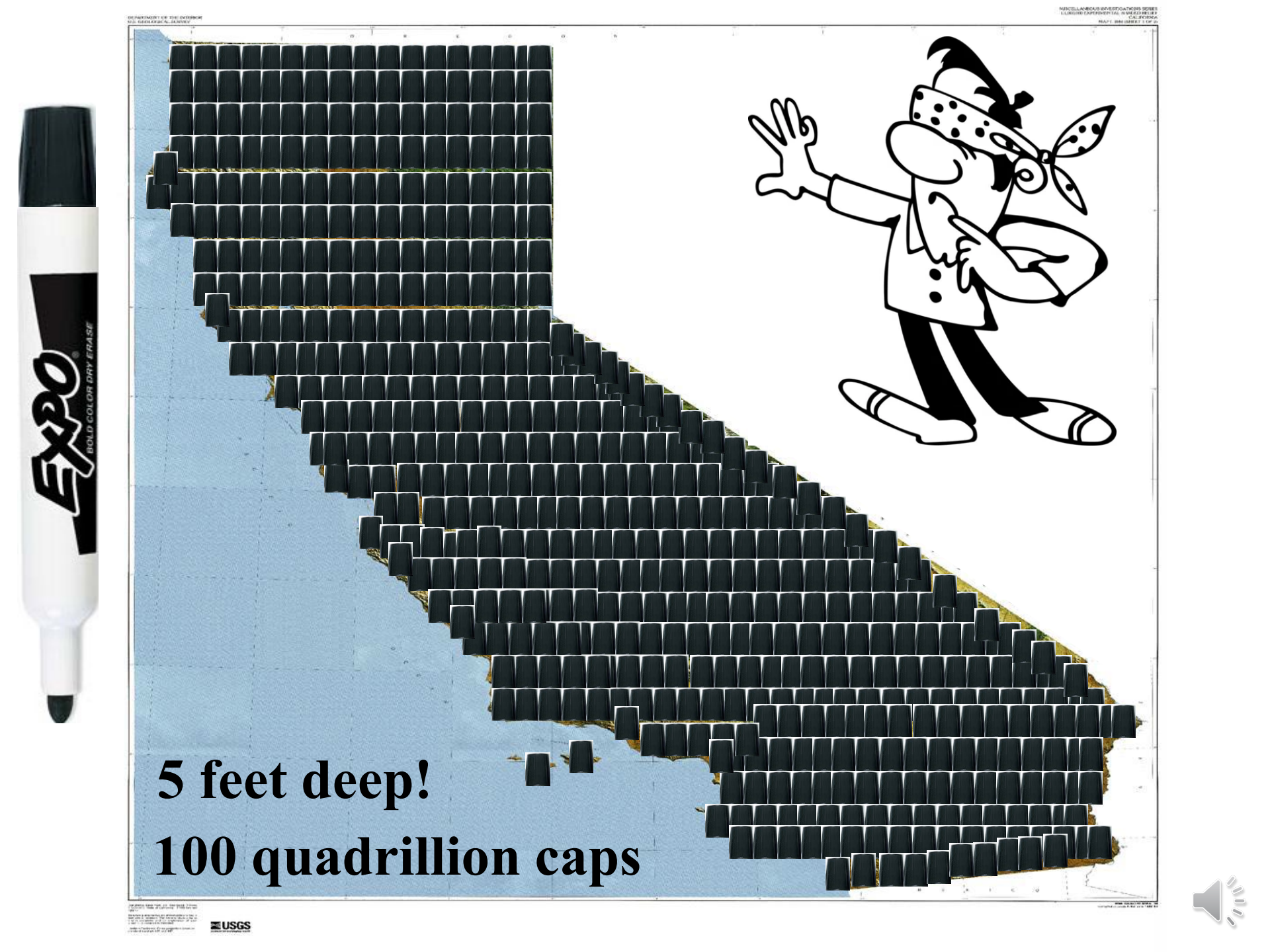
1 in 10 octillion

The chance of **one** man fulfilling all 8 of these prophesies

The chance of **ANY** man fulfilling all 8 of these prophesies

$$\frac{1}{100{,}000{,}000{,}000{,}000} = \frac{1}{10^{17}}$$

1 in 100 quadrillion


EXPO
BOLD COLOR DRY ERASE
5 feet deep!
100 quadrillion caps
USGS

descendent of Abraham

descendent of Isaac

descendent of Jacob

descendent of Judah

descendent of Jesse

descendent of David

blind healed

deaf healed

lame healed

dumb healed

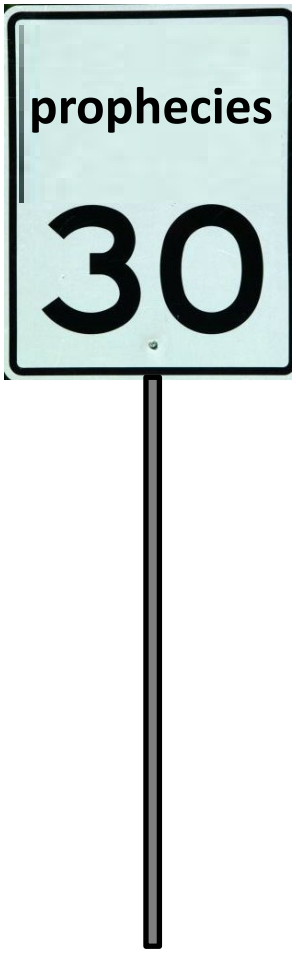
teacher of parables

out of Egypt I called My Son

accused by false witnesses

forsaken by His disciples

struck



spit upon

mocked

bruised

wounded

numbered with the transgressors

garments parted and lots cast

stared upon

people shook their heads

friends stood afar off

suffered thirst

gall & vinegar offered to Him

bones not broken

pierced

darkness over land

buried in a rich man's tomb

Jesus made references to:

Adam & Eve – Mark 10:6

Abel – Matthew 23:34-35

Zechariah – Matthew 23:34-35

Noah – Luke 17:27

Abraham – John 8:58

Lot – Luke 17:28

Lot's wife – Luke 17:32,33

Isaac – Matthew 8:11

Jacob – Matthew 8:11

Moses – John 3:14

David – Luke 6:3

Solomon – Matthew 12:42

Elijah – Mark 9:12

Elisha – Luke 4:27

Naaman – Luke 4:27

Jonah – Matthew 12:40

Isaiah – Mark 7:6

Daniel – Matthew 24:15,16

“Theorems” of Christianity

Theorem 1: All have sinned.
-Romans 3:23

Theorem 2: The wages of sin is death.
-Romans 6:23

Theorem 3: Jesus died for our sins and rose from the dead.
-1st Corinthians 15:3-4

Theorem 4: Whoever believes in Jesus will not perish but have everlasting life.
-John 3:16

Math & the Bible

Through The Bible: Chuck Smith
J. Vernon McGee
Skip Heitzig

Pick a gospel and start listening!

links and handouts found at bottom of:
www.joevasta.com

To God be the glory.