## A Biblical Treasure Hunt

SOLUTION KEY By David Pleacher

Wackie Wordies:

1. Infinite Wisdom (Wisdom is in the word Finite)
2. Peace on Earth (Ps are on top of Earth)
3. World without end (World is missing the ending letter)

IBM punch card using Hollerith Code
4. TRUTH

$$
\begin{array}{ll}
\mathrm{T}=0 \text { punch and } 3 \text { punch } & \left(1^{\text {st }} \text { column }\right) \\
\mathrm{R}=\text { Low punch }(11) \text { and } 9 \text { punch } & \left(2^{\text {nd }} \text { column }\right) \\
\mathrm{U}=0 \text { punch and } 4 \text { punch } & \left(3^{\text {rd }} \text { column }\right) \\
\mathrm{T}=0 \text { punch and } 3 \text { punch } & (4 \text { th column }) \\
\mathrm{H}=\text { High punch }(12) \text { and } 8 \text { punch } & \left(5^{\text {th }} \text { column }\right)
\end{array}
$$

Magic square from Albrecht Dürer's Melencolia I (mentioned in Dan Brown's novel The Lost Symbol)
5. Hope for the Future


Match up the letters in the puzzle with the magic square from Durer.
$1=H, 2=0,3=P, 4=E, 5=F, 6=0,7=R, 8=T$,
$9=H, 10=E, 11=F, 12=U, 13=T, 14=U, 15=R, 16=E$
Then read in order.
6. Quran 88:11 mentions NO UNSUITABLE LANGUAGE (or NO PROFANITY).

Let $\mathrm{c}=$ chapter and $\mathrm{v}=$ verse.
Then $\mathrm{c}=8 \mathrm{v}$ and $\mathrm{c}+\mathrm{v}=99$
So, $8 v+v=99$, therefore, $9 v=99, v=11$. Then $c=88$
7. LOVE

In the ASCII code, the letter $A=65, B=66, . . E=69, . . L=76, . . O=79, . . V=86 . . Z=90$.
8. CULTIVATE DEEP FRIENDSHIPS

These are the anagrams of latticevu depe dpfinishers.

## Part 2 problems:

1 John 4:9 states, "... God sent his only begotten Son into the world ..."
So the present tense would be SEND.
1 Timothy 6:10 states, "For the love of money is the root of all evil."
This gives us the following cryptarithm from Judas:

$$
\begin{aligned}
& \text { S E N D (1 John 4:9) } \\
& +\mathrm{M} \mathrm{ORE} \\
& \text { M O N E Y } \\
& \text { (1 Timothy 6:10) }
\end{aligned}
$$

The solution is: $9567+1085=10652$, where
$S=9$
$\mathrm{E}=5$
$\mathrm{N}=6$
D $=7$
$\mathrm{M}=1$
$0=0$
$\mathrm{R}=8$
$Y=2$

The number of jewels in the original pile was 27.
During the night, Delilah decides to take her share (1/3 of the pile), which is 9 jewels, leaving 18.
Jezebel awoke and took $1 / 3$ of the remaining jewels, which was 6 jewels leaving 12.
Herodias awoke and took $1 / 3$ of the remaining jewels, which was 4 jewels, leaving 8 jewels in the pile.

There are 20 ways to spell MATTHEW.
Use a form of Pascal's triangle, showing the number of ways in which you can reach a particular letter.

1
11
121
$\begin{array}{llll}1 & 3 & 3 & 1\end{array}$
4
$6 \quad 4$
1010
20

The fly flew for 50 miles.
Mark and Luke are 20 miles apart. They are moving towards each other at a combined rate of $4+6$ or 10 mph . Therefore it takes two hours before they come face to face.
The fly is flying at a constant rate of 25 mph for 2 hours so it flies 50 miles.

In crossball ( a fictitious game), it is impossible to score 11 points but every score after that can be made from combinations of 3 points or 7 points.

The cistern will be filled in 16 minutes.

Every minute, the two pipes together deliver 4.25 gallons. They will deliver all 68 gallons in $68 / 4.25=$ 16 minutes.

1. Let $\mathrm{H}, \mathrm{B}$, and T be three variables representing the Head, Body, and Tail of the fish.
2. $\mathrm{H}=9$ ".
3. $\mathrm{T}=\mathrm{H}+1 / 2 \mathrm{~B}$
4. $B=H+T$
5. So, $B=9+9+1 / 2 B$, by substitution.
6. Therefore, $B=36 "$.
7. So, $T=9+18=277^{\prime \prime}$.
8. The Fish $=\mathrm{H}+\mathrm{B}+\mathrm{T}$ or 72 " in length.

The children's ages are 2,2 , and 9 , and the address is 13.
The following are the only combinations of three ages whose product is 36:

| $1 \times 1 \times 36$ | $2 \times 2 \times 9$ | $1 \times 3 \times 12$ | $1 \times 2 \times 18$ |
| :--- | :--- | :--- | :--- |
| $1 \times 6 \times 6$ | $2 \times 3 \times 6$ | $1 \times 4 \times 9$ | $3 \times 3 \times 4$ |

Except for two of the combinations, their sums are all different, so the census worker would have been able to determine the ages of the children if the address next door had been any of those six different ones.
As she needed more information, the address must have been 13 , a total shared by two combinations:
$1,6,6$ and $2,2,9$.
So, when the mother indicated that there was an oldest child, she eliminated the first combination, which had two "oldest," leaving only $2,2,9$ as the answer.

Peter paid $\$ 20$, Bartholomew paid $\$ 15$, Andrew paid $\$ 12$, and Thomas paid $\$ 13$.

$$
\$ 20+\$ 15+\$ 12+\$ 13=\$ 60 .
$$

Peter paid one-half of the sum of the amounts paid by the other disciples. $20=1 / 2(15+12+13)$
Bartholomew paid one-third of the amounts paid by the other disciples. $15=1 / 3(20+12+13)$
Andrew paid one-fourth of the amounts paid by the other disciples. $12=1 / 4(20+15+13)$
Solve 4 equations with 4 unknowns:

$$
\begin{aligned}
& P+B+A+T=60 \\
& P=1 / 2(B+A+T) \\
& B=1 / 3(P+A+T) \\
& A=1 / 4(P+B+T)
\end{aligned}
$$

The smallest number of cats is 972 .
Let $c$ be the number of cats.
Then $c=(1 / 3) n^{\wedge} 2$ for some integer $n$, which makes $n$ divisible by 3 .
Let $\mathrm{n}=3 \mathrm{~m}$ for some integer m .
Then, we get $\mathrm{c}=3 \mathrm{~m}^{\wedge} 2$.
When a quarter is gone we are left with (3/4)c = (9/4) $\mathrm{m}^{\wedge} 2$.
This number must be a cube, say, $\mathrm{k}^{\wedge} 3$ for some integer $k$.
We then get $m^{\wedge} 2=(4 / 9) k^{\wedge} 3$.
Or, $m=(2 / 3) k^{\wedge}(3 / 2)$, which makes $k$ divisible by 3.
The smallest such $k$ is 9 , which makes $m=18$ and $c=972$.
Thus, the smallest number of cats is 972 .

In the arc problem, there are 22 birds and 14 beasts.
Let $A=$ number of birds and $B=$ the number of beasts.
Then $A+B=36$ and $2 A+4 B=100$

The total number of gifts given in the song, The Twelve Days of Christmas, is 364.

| Partridges | $12 \times 1=12$ |
| :--- | :--- |
| Turtle Doves | $11 \times 2=22$ |
| French Hens | $10 \times 3=30$ |
| Calling Birds | $9 \times 4=36$ |
| Gold Rings | $8 \times 5=40$ |
| Geese-a-laying | $7 \times 6=42$ |
| Swans-a-swimming | $6 \times 7=42$ |
| Maids-a-milking | $5 \times 8=40$ |
| Ladies Dancing | $4 \times 9=36$ |
| Lords-a-leaping | $3 \times 10=30$ |
| Pipers Piping | $2 \times 11=22$ |
| Drummers Drumming | $1 \times 12=12$ |

Total 364

There are 35 ways for the bishop to get from $A$ to $B$ on the chessboard.
Use Pascal's Triangle to determine how many ways you can get to each red square between $A$ and $B$.


The Area of the shape below is three square inches.


Extend the horizontal line on the top and the vertical line on the right until they meet at point $B$.
This forms a large right triangle whose dimensions are $3^{\prime \prime}, 4$ ", and 5 ".
The area of the entire triangle is $1 / 2 \times 3 \times 4=6$ square inches.
Note that if you subtract the three one-inch squares from this total, you get 6-3=3 square inches for the area of the figure you were given. (shaded in red).

The Old Testament Game 39 (a fictitious game)

Pick the number 4 as your starting number.
Thirty-nine is 4 more than a multiple of 7 , so you should pick 4 as your starting number.
Then, no matter what your opponent chooses, you say 7 minus that number.
On your sixth turn, you will cause the score to reach 39 exactly.

Jonah's whale is 48 feet long.

Let $x=$ length of the whale. Then:
The HEAD $=6$ feet long.
The TAIL $=6+1 / 2(1 / 2 x)$.
The BODY = $1 / 2 x$.

So, $x=(6)+(1 / 2 x)+(6+1 / 4 x)$
Therefore, $x=48$ feet.

The number of boyfriends is 42 .

> Let B = \# of boyfriends.

Then $(B-1+3) / 4=10+1$
So, $(B+2) / 4=11$
And $B+2=44$
Therefore $B=42$

Reuben is 21 years old.

Let $r=$ Reuben's age and $b=$ Benjamin's age.
$r=7 b$
$r=b+(12 \times 1.5) \quad$ since there are 11 kids in between them.

So solve the two equations:
$r=7 b$
$r=b+18$

Substituting for $r$ in the second equation, $7 b=b+18$, so $6 b j=18$ and $b=3$.
Then $r=7(3)=21$.

Here are the ages of all thirteen children:
$\begin{array}{lllllllllllll}3 & 4.5 & 6 & 7.5 & 9 & 10.5 & 12 & 13.5 & 15 & 16.5 & 18 & 19.5 & 21\end{array}$

Answers:

The twenty Treasures of Heaven:

1. Infinite Wisdom
2. Peace on Earth
3. World without End
4. Truth
5. Hope for the Future
6. No unsuitable speech (no profanity)
7. Love
8. Cultivate deep friendships
9. GENEROSITY
"God loves a cheerful giver" Corinthians 9:7

## 10. A desire to Follow Jesus

"Sell everything you have and give to the poor, and you will have treasure in heaven. Then come, follow me." Luke 18:22
11. Serve Christ by serving others
"Truly I tell you, whatever you did for one of the least of these brothers and sisters of mine, you did for me." Matthew 25:35-40
12. Prayer
13. A place in the house of the Father
"In my Father's house are many mansions." John 14:2
14. Justice
15. Opportunity for everyone to be productive
16. Provision for everyone's needs
17. Respect for the dignity of every person
18. Forgiveness
19. Keep the Ten Commandments
20. Seek after the kingdom of God
"But seek first his kingdom and his righteousness, and all these things will be given to you as well." Matthew 6:33

Values of the 26 variables from Part 2:

| $A=\ldots 27$ | $\mathrm{H}=\ldots \ldots 364$ | $\mathrm{O}=$ | 0 | $\mathrm{V}=$ | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $B=$ | $I=$ | $P=$ | 72 | W | 20 |
| $C=\ldots 35$ | $\mathrm{J}=\ldots$ | Q = | 14 | $X=$ | 13 |
| $\mathrm{D}=\ldots \quad 7$ | $K=$ | $\mathrm{R}=$ | 8 |  | 2 |
| $E=$ | $L=\underline{21}$ | $S=$ | 9 |  | 972 |
| $F=$ | $\mathrm{M}=\ldots$ | $\mathrm{T}=$ | 50 |  |  |
| $\mathrm{G}=\ldots$ | $N=$ | $\mathrm{U}=$ | 4 |  |  |

