

THE RACEHORSES

Six horses (one named Speedy) were entered into the Grand-Town Derby, by their owners (one was named Midi). Each horse finished the race in some order (1 through 6), each horse also has a peculiar characteristic (one was spotted).

From the clues below can you determine which Horse had which characteristic, and owner, and the order of finish of them in the Derby?

CLUES

Matty's horse (Laughy) finished 5th, and was not Black.

Paul's horse (Diamond) was not a winner.

The horse named Fanny was the one with the speckles or spots.

Giddy-up, Speedy, and Diamond finished (in some order) in the top three, as were the following owners Thom, Midi and Paul, whose horses had these characteristics: Grey, White, and Silver (also, in some order).

Speedy the white horse owned by Midi, finished either 1st or 2nd.

Shorty owned either the Spotted horse or Willow, the one that finished last.

Madge does not own the horse that finished 4th.

The winning horse did not have a white or silver tail.

THE RACEHORSES	1	2	3	4	5	6	SH	TH	Ma	Mi	My	Pa	Wh	Sp	Br	Bl	GR	SI
Diamond																		
Fanny																		
Giddy up																		
Laughy																		
Speedy																		
Willow																		
White																		
Spotted																		
Brown																		
Black																		
Grey																		
Silver																		
Shorty																		
Thom																		
Madge																		
Midi																		
Matty																		
Paul																		

STEP-BY-STEP

The order of finish:

1. Giddy-up Thom-Grey.
2. Speedy- Midi-White.
3. Diamond- Paul- Silver.
4. Fanny- Shorty- Spotted.
5. Laughy- Matty- Brown.
6. Willow- Madge- Black.

- This first clue "**Matty's horse(Laughy) finished 5th and was not Black.**"

Gives us a few good clues, beginning with **Matty-Laughy-5th** and ending with "**....not black**".

Locate the following grid squares: [**Laughy-5th, Laughy-Matty, Matty-5th**] and highlight ALL with 'green boxes'.

Next, make all appropriate grid eliminations in the Laughy row including:

Laughy- 1,2,3,4, and 6.

Laughy- Shorty,Thom, Madge, Midi, and Paul.

Laughy- Black.

Then the grid eliminations for Column 5:

5-Diamond, Fanny, Giddy up, Speedy, Willow, Black, Shorty,Thom, Madge, Midi, and Paul.

Then make these additional eliminations:

The row **Matty-1,2,3,4, and 6**, as well as the column, **Matty-Diamond, Fanny, Giddy up, Speedy, Willow, Black.**

- This next clue "**Paul's horse (Diamond) was not a winner.**"

Locate the following grid squares: [**Diamond-1, Paul-1**] and make the eliminations for these grid squares.

Next highlight (with a 'green box') the grid square [**Diamond-Paul**].

Then make the grid eliminations for Row **Diamond**:
Diamond- Shorty,Thom, Madge,and Midi.

Then make the grid eliminations for Column **Paul**:
Paul- Fanny, Giddy up, Speedy, and Willow.

- This clue "**The horse named *Fanny*, was the one with the speckles or spots.**"

Locate the following grid square: [***Fanny-Spotted***] and highlight with a 'green box'.

Next, make all appropriate grid eliminations in the Fanny row including:

Fanny - White, Brown, Black, Grey and Silver.

Then the grid eliminations for Column ***Spotted***:

Spotted - Diamond, Giddy up, Laughy, Speedy, and Willow.

****NOTE**** Since ***neither Diamond (owned by Paul)*** or ***Laughy (owned by Matty)*** are **the spotted horses**, it follows that: **neither Matty or Paul own the spotted horse**, and the spotted horse (***which is Fran, and which did not finish 5th***), we can now make these eliminations: [***Spotted-5, Spotted-Matty, Spotted-Paul***].

- The next clue "**Giddy-up, Speedy, and Diamond finished, (in some order) in the top three as were the following owners Thom, Midi and Paul, whose horses had these characteristics: Grey, White, and Silver, (also, in some order).**"

This is vital because it tells us three components of the three top finishers, namely:

Horses names: Giddy-up, Speedy, and Diamond; as well as ,
Owners: Thom, Midi and Paul, and the
Colors: Grey, White, and Silver.

(Which allows us to make a multitude of logical conclusions/combinations). To begin with :

Locate the rows for ***Giddy-up, Speedy, and Diamond***, and make the eliminations:

Diamond - 4, 6, (from which this elimination follows ***Paul - 4, 6***).
Giddy Up - 4, 6, Shorty, Madge, Brown, Black.
Speedy - 4,6, Shorty, Madge, Brown, Black.

Next, Locate the rows for ***Grey, White, and Silver***, and make the

eliminations:

White - 4, 5, 6, Shorty, and Madge. .

Grey - 4, 5, 6, Shorty, and Madge.

Silver - 4, 5, 6, Shorty, and Madge.

Finally locate these **owner's** rows: **Thom, Midi and Paul** (and make the eliminations):

Thom - 4, 6.

Midi - 4, 6.

Paul - 4, 6.

****NOTE**** It is important that we now look at the bottom finishers(4th, 5th and 6th), that is these

Horses names: Fanny, Laughy, and Willow; as well as these **Owners: Shorty, Madge, and Matty.** and the **Colors: Spotted, Brown, and Black.**

(From these combinations we can make some additional eliminations)

First locate the rows for the horses **Fanny, Laughy, and Willow** and make the eliminations

Fanny - 1,2,3, Thom, Midi,

Laughy - White, Grey, Silver.

Willow - 1,2,3, Thom, Midi, White, Grey, Silver.

Now locate the rows for the non-winning color combos **Spotted, Brown, Black** (and eliminate)

Spotted - 1, 2, 3, Thom, Midi,

Brown - 1, 2, 3, Thom, Midi,Paul.

Black - 1, 2, 3, Thom, Midi, Paul.

Finally locate the rows for the non-winning owners **Shorty, Madge, and Matty** and eliminate these combos:

Shorty - 1, 2, and 3.

Madge - 1, 2, and 3.

****NOTE**** Before we proceed to the next clue we can make some

observations from the grid as follows:

Locate the **solution** for grid square [**Laughy-Brown**], (which is the only possible solution remaining for **Laughy's row**), and leads to the eliminations in **Brown's column** :

Brown - Diamond, Speedy, Willow. (Which leads to another solution **Willow-Black**), and further eliminations of the single grid square [**Diamond-Black**],and yet two other solutions [**Brown-5th, Brown-Matty**], which, in turn , allows more eliminations in the **Brown row**:
Brown - 6, Shorty, and Madge , (Which allows us to complete **Matty's column**):(by eliminating)

Matty - White, Spotted.

- The next clue is "**Speedy the white horse owned by Midi, finished , either, 1st or 2nd.**"

We can make an immediate connection namely **Speedy-White-Midi** , so highlight (with a 'green-box')
The following grid squares in **Speedy's row** :

[**Speedy-Midi, Speedy-White**] while eliminating these

Speedy - Thom, Grey, Silver, and 3 (because, we know, from the end of this clue , that the horse Speedy, "...finished, either, 1st or second").

****NOTE**** (We can now make some additional eliminations for both **Midi**, and the **White** (rows/columns)).

Lets start with column **Midi**, and eliminate :
Midi - Giddy Up, Grey, Silver (after highlighting the grid square [**Midi-White**]), which, of course allows us to eliminate items in both **White's** column (**White-Diamond , Giddy Up**) and **row**: (**White-3, Thom and Paul.**).

Lastly, we can eliminate (**from Midi's row**) the grid square: [**Midi-3**].

- Lets look at another given clue "Shorty owned either the Spotted horse or , Willow, the one that finished last."

The only useful portion of this clue (for now) is the last part "...**Willow, the one that finished last.**"

So locate and highlight grid square [**Willow-6**], then make the appropriate logical eliminations in **Willow's** row : **Willow - 4**, (which also leads to the solution of **Fanny-4**) , (after eliminating the grid square [**Fanny-6**]).

- Now this clue : "Madge does not own the horse that finished 4th. ."

Let's first locate grid square [**Madge-4**], make the elimination ,and we discover that **Madge** must(and can only) own the horse that finished **6th (- which is Willow, the black horse)**, therefore, we can finish column **6** eliminations as follows:

6 - Spotted , Shorty (after highlighting **6 - Black, Madge**), leaving only **Spotted - 4** as the possible solution, (and after completing the **Spotted** row), we conclude that **Shorty was it's owner** , this leaves the final horse-owner solution (**Giddy Up-Thom**).

****NOTE**** (You can also now complete the **4-Column**).

It then remains to determine only the final order of finish!

- Lets look at that last clue "The winning horse did not have a white or silver tail."

If we start with the elimination of grid squares [**White-1, Silver-1**], this leaves the "ONLY" solution for the winning horse's color to be'**Grey**' (so highlight **Grey-1**), and we may conclude that:

the **2nd place** horse had to have been **White** , and (by consequence), the **silver horse was 3rd** , (and since **the white horse finished second**), this means

the 2nd place horse could have only have

been **Speedy (owned by Midi)**, which means **Diamond (owned by Paul)**, finished **3rd**, (which was the Silver horse), which now makes the winning horse **Giddy Up**, which can only be **owned by Thom**, which has the **Grey tail!** .

- Congratulations! Puzzle solved. To summarize:
The order of finish:

1. Giddy-up Thom-Grey.
2. Speedy- Midi-White.
3. Diamond- Paul- Silver.
4. Fanny- Shorty- Spotted.
5. Laughy- Matty- Brown.
6. Willow- Madge- Black.