

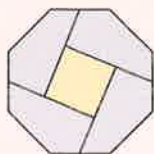
Summer Holiday 2018

Deputy First Minister's Maths Challenge



GLASGOW 2018

The Scottish
Mathematical
Council



EUROPEAN
CHAMPIONSHIPS
GLASGOW 2018



Scotland
Scotland.org

Official Partner

TAM'S TAXI

CHALLENGE

Tam drives a taxi in Glasgow and will collect people going to watch each of the Scottish-based events. He collects people from the city centre and then returns there waiting for the next customer. He takes **one trip to each event on each day**.



Fill in the kilometres Tam will have travelled each day and what the totals would read.

EXTRA CHALLENGE

Tam's taxi can travel an average of 300km on a full tank of fuel. Tam likes to be well prepared and fills up the tank at night if he has travelled more than half of this distance.



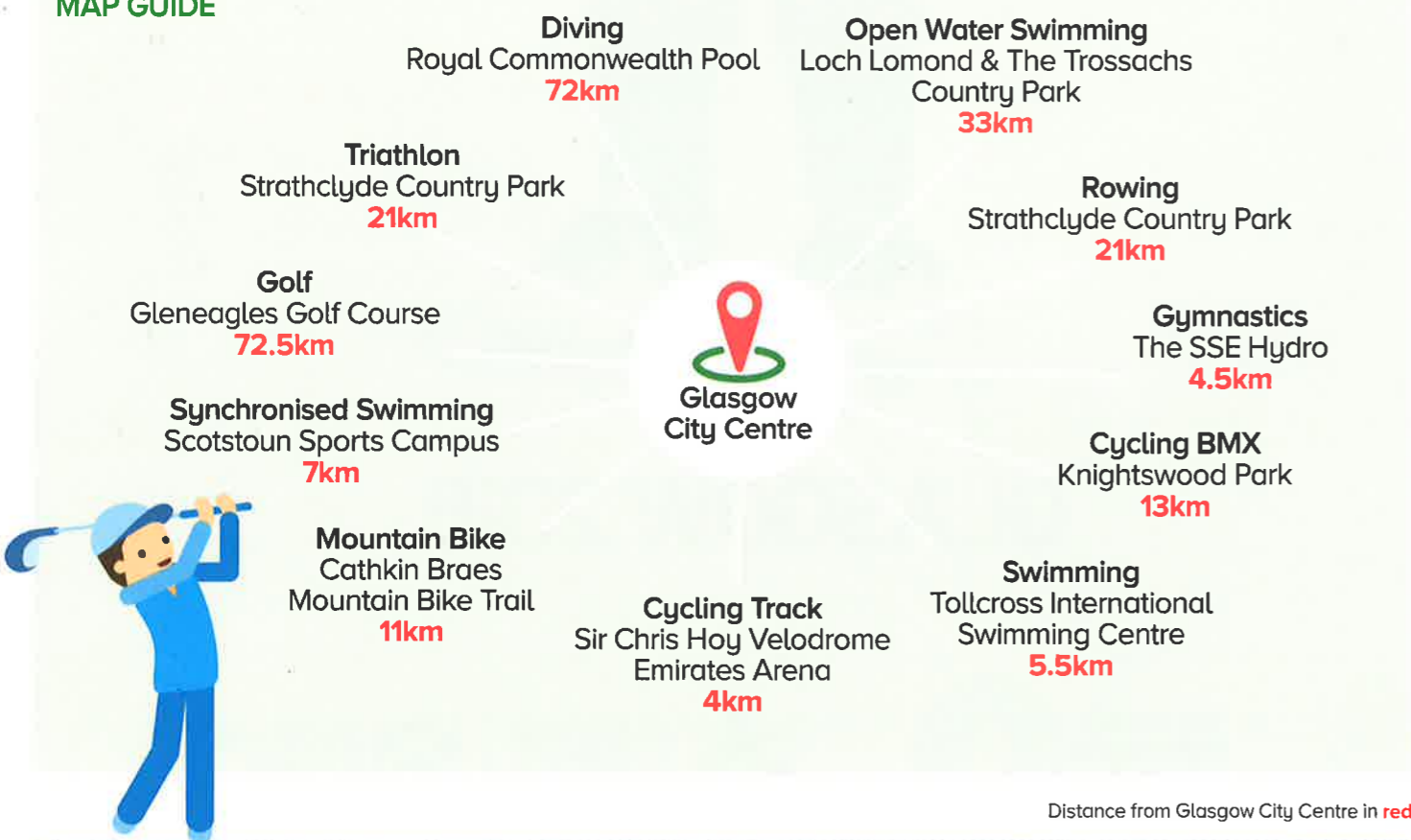
If Tam fills the taxi up on Wednesday 1 August, what other nights should he refill his fuel tank?



Use the map guide below and the competition schedule on the next page to get the information you will need.

	Thursday, 2 August	Friday, 3 August	Saturday, 4 August	Sunday, 5 August	Monday, 6 August	Tuesday, 7 August	Wednesday, 8 August	Thursday, 9 August	Friday, 10 August	Saturday, 11 August	Sunday, 12 August
Total km travelled on this day											
End of day odometer reading											

MAP GUIDE



SCHEDULE ASSISTANT

CHALLENGE

Ewan, Sophie and Heather are visiting the Championships in Scotland and attend each competition that is on while they are there. Ewan goes for the first four days. Sophie can only attend on Friday 10 and Saturday 11 August, while Heather goes from Monday 6 August for three days.

Rebecca plans to see two events per day. Is it possible for her to see each competition if she stays for the entire Championships?

Morven works for a television company covering the Championships in Scotland and has to make sure there is one television camera at each competition on each day to interview the competitors.

Who can attend the highest number of different competitions?

Work out the best schedule for Rebecca.

What is the smallest number of cameras Morven will need to cover all the competitions if they can be moved overnight?

Can you create some extra questions to puzzle yourself, your friends or family using the Competition Schedule below?

COMPETITION SCHEDULE	Thursday, 2 August	Friday, 3 August	Saturday, 4 August	Sunday, 5 August	Monday, 6 August	Tuesday, 7 August	Wednesday, 8 August	Thursday, 9 August	Friday, 10 August	Saturday, 11 August	Sunday, 12 August
European Swimming Championships		Green	Green	Green	Green						
European Diving Championships					Green		Green	Green	Green	Green	Green
European Synchronised Swimming Championships	Green	Green	Green	Green	Green						
European Open Water Swimming Championships							Green	Green		Green	
European Rowing Championships	Orange	Orange	Orange	Orange							
Triathlon European Championships								Yellow	Yellow	Yellow	
Cycling Track European Championships	Red	Red	Red	Red	Red	Red					
Cycling Mountain Bike European Championships						Red					
Cycling BMX European Championships								Red	Red		
European Golf Team Championships							Green	Green	Green	Green	Green
European Women's Artistic Gymnastics Championships	Blue		Blue	Blue							
European Men's Artistic Gymnastics Championships								Blue		Blue	Blue



WHO'S SUPPORTING WHO?



Ranomi Kromowidjojo
Netherlands
Sport: **Swimming**
Height: **1.80m**
Date of Birth: **20/08/1990**
Titles to defend: **Three**
Athlete number: **314**



Katie Archibald
Great Britain
Sport: **Cycling**
Height: **1.78m**
Date of Birth: **12/03/1994**
Titles to defend: **One**
Athlete number: **707**



Joris Daudet
France
Sport: **BMX**
Height: **1.83m**
Date of Birth: **12/02/1991**
Titles to defend: **One**
Athlete number: **442**



Ross Murdoch
Great Britain
Sport: **Swimming**
Height: **1.83m**
Date of Birth: **14/01/1994**
Titles to defend: **Two**
Athlete number: **888**



Eleftherios Petrounias
Greece
Sport: **Gymnastics**
Height: **1.64m**
Date of Birth: **30/11/1990**
Titles to defend: **One**
Athlete number: **420**



Jessica Learmonth
Great Britain
Sport: **Triathlon**
Height: **1.68m**
Date of Birth: **18/04/1988**
Titles to defend: **One**
Athlete number: **144**



Victoria Thornly
Great Britain
Sport: **Rowing**
Height: **1.93m**
Date of Birth: **30/11/1987**
Titles to defend: **One**
Athlete number: **840**



Oleg Vernyayev
Ukraine
Sport: **Gymnastics**
Height: **1.60m**
Date of Birth: **29/09/1993**
Titles to defend: **One**
Athlete number: **941**

Logan is supporting a sportsperson who:

- has an athlete number that is even
- is competing in the women's competition
- will have to travel through water in her event
- is in her 20s

Heidi's favourite athlete:

- is defending one title
- shares a birthday with another reigning champion
- wears an athlete number that can be divided by 1, 2, 3, 4, 5, 6, 7 and 8

Daisy says the athlete she's excited about watching:

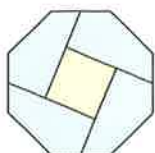
- will be 24 years of age at the tournament
- is performing in their home country
- would be 1m 80cm tall if their height was rounded to the nearest 10cm
- has an athlete number that is the same forwards and backwards

Can you work out which athlete the three children are supporting?

Issued to Primary 6 pupils in Scotland for Summer holiday maths family fun.

Created by the Scottish Mathematical Council for the Scottish Government.

Solutions and workings will be published at blogs.gov.scot/making-maths-count on Friday 27 July 2018. Share your thoughts and photos with us @mathsscot with #summermaths



CREATE YOUR OWN TRIATHLON

You may be too young to compete at the GLASGOW 2018 championships – but that does not mean you can't be developing your fitness and skills to become a future star. Why not get planning and create your own Triathlon!

You will need to decide on three events that you and your fellow competitors can take part in.

What are the events?

That is up to you – we live in different kinds of places across Scotland and what might work for you wouldn't be good for someone else. Take where you live and be creative (and safe) and create some events that involve some exercise – but make sure your competitors get a chance to be involved so there is a mix of events to suit. We can't all be good at everything. You could have a running race, a cycling/scooting event, a golf or throwing and catching event using a crumpled up sheet of old newspaper and an old/plastic cup, a number of somersaults or starjumps to do...

What should I do before the Triathlon?

That's simple – get training. All of the athletes at Glasgow 2018 will have trained for years to get to the level where they are able to compete for their country. Once your events have been decided on and who each competitor is - design your schedule - make up your events – get training and HAVE FUN.

Who gets to compete?

Anyone you wish – each competitor takes one of the athlete cards and competes as them for the championship.

Safety

All sporting events require a safety officer. Their job is to make sure it is ok to do the event and that there are no potential hazards or dangers. Sorry children – this one needs to be an adult.

Medals and points

Once again that is completely up to you. Decide BEFORE the events if a Gold, Silver and Bronze will be worth 3 points, or 5 points, or something else. Also, are there points given for taking part if there are more than three athletes?



MEDAL BOARD

This page has a medal board and an athlete sheet for you to use. Work out best how, and when, to record the information and results.

What if...

The points system was changed (after the events have taken place) would this change the leaderboard? Why not look at the final medal board on 12 August, the final day of the Championships, and calculate using your scoring system which country would have done best in the Championships.

Event	Gold	Silver	Bronze



Athlete's name	Event 1	Event 2	Event 3	Total points

...and the winner is: _____