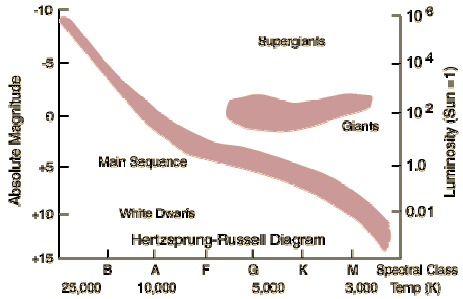
Science In Action 9 - Numerical Response Questions - Space Exploration

1. The **Hertzsprung-Russell** diagram (which includes data from thousands of stars) graphs the brightness and temperature of each class of star. Rank the stars from hottest to coolest.



__1__ White Dwarf __4__ Giant __2__ Supergiant __3__ Sun (main sequence)

1	4	2	3
	.	.	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

2. Place these events that represent a small part of the early achievements of space science in the order they happened, beginning with the earliest.

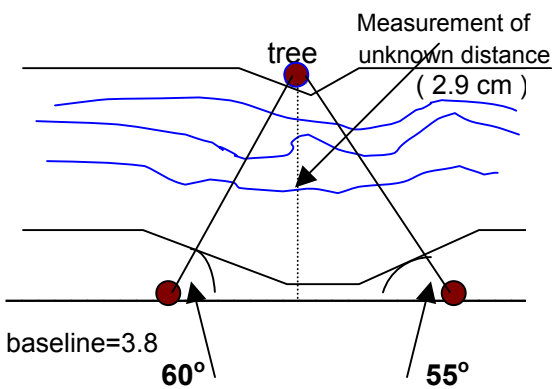
- 1 – Sputnik 1
- 2 – International Space Station
- 3 – Goddard's liquid fuel
- 4 – Archytas's pigeon

__4__ __3__ __1__ __2__

Earliest ⟷ Most Recent

4	3	1	2
	.	.	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

3. Using the **triangulation method,** calculate (to the nearest tenth of a meter) the distance (in meters) across the river without actually crossing it.



Scale of drawing: 1cm = 15m

4	3	.	5
	.	.	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

4. Canadian Achievements in Space include:

1. 1st Female Astronaut
2. 1st Magnetic Observatory
3. 1st Canadian to walk in space
4. 1st Canadian in Space

Match each Canadian to their achievement

__1__ **Roberta Bondar** __4__ **Marc Garneau** __2__ **Sir Edward Sabine** __3__ **Chris Hadfield**

1	4	2	3
	.	.	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9