Exploring Saturn's Moons

Moon	Millions of km	
Tarvos	18.56	
Mundilfari	18.7258	
Jarnsaxa	18.557	
Greip	18.0657	
Tarqeq	17.9	
Siarnaq	17.776	
Skoll	17.473800	
Erriapus	17.237	
Bebhionn	17.2	
Hyrrokkin	18.168	

Saturn has 64 moons that range in size from Aegaeon, which is barely over 1 kilometer across, to Titan which is 5151 km in diameter and is about the same size as the planet Mercury! The farthest moons of Saturn orbit at distances of nearly 25 million km from Saturn. By comparison, Mercury orbits about 35 million km from our Sun.

Problem 1 – Order the moons in terms of their increasing distance from Saturn by sorting the decimal values from smallest to largest.

Problem 2 – How much farther away from Saturn is the moon Skoll than Erriapus in A) millions of kilometers? B) in kilometers?

Problem 3 – What is the span of distances between the closest moon in this list and the farthest moon in this list A) in millions of kilometers? B) in kilometers?

Answer Key

Moon	Millions of km		
Tarvos	18.56	Bebhionn	17.2
Mundilfari	18.7258	Erriapus	17.237
Jarnsaxa	18.557	Skoll	17.473800
Greip	18.0657	Siarnaq	17.776
Tarqeq	17.9	Tarqeq	17.9
Siarnaq	17.776	Greip	18.0657
Skoll	17.473800	Hyrrokkin	18.168
Erriapus	17.237	Jarnsaxa	18.557
Bebhionn	17.2	Tarvos	18.56
Hyrrokkin	18.168	Mundilfari	18.7258

Problem 2 – How much farther away from Saturn is the moon Skoll than Erriapus in A) millions of kilometers? B) in kilometers?

Answer: A) Erriapus = 17.237 Skoll=17.473800 Difference = **0.2368 million km**. B) 0.2368 million km = **236,800 km**.

Problem 3 – What is the span of distances between the closest moon in this list and the farthest moon in this list A) in millions of kilometers? B) in kilometers?

Answer A) 18.7258 – 17.2 = **1.5258 million km** B) **1,525,800 km**.