

Science 10 Distance –Time Problems

Name: _____

_____ marks

Answer all questions in the 5 Step Process!

1. It is 4:15 in the afternoon. Kelsie invites Arlette over to watch Pokemon at 4:30 pm. Kelsie's house is 14.5 km from Arlette's. Kelsie hops on her new "*Lil'Tikes Big Girl Tricycle with cell phone/MP3/TV Limited Edition*", but she is not able to go faster than 30 km/h because she knows speed and cell phones can kill. How long will it take for Kelsie to arrive? Will she be on time for Pokemon? Which Pokemon does Kelsie like the best? And will she ever learn how to sit forward in her desk? That is difficult, it's since Arlette isn't in front of her at all times! (5 marks)
2. Eric and Jordan decide to take a holiday across the Arctic in the summer. They borrow Jahmell's boogy van with a groovy teardrop window and take off. They drive for 11.5 days and cover 6000 km not even stopping for sleep because they are having so much fun. (Especially with Eric's Debit Card Pin #4321). What was their average speed? Jahmell started to cry because he couldn't boogy with his van for the whole time they were gone. (5 marks)
4. Amadeus wanted to take his friends for a walk in the snow. He couldn't find any so he alone strolled for 3 hours and 15 minutes at an average velocity of 2.6 m/s in the countryside. Meanwhile, Greg felt left out and wanted to take Jenna for a ride on his dirt bike. He couldn't because Jenna was too busy talking in class, to Chandra and Simmi, blah, blah, blah, and missed Greg taking off. So, Greg drove for 13 minutes at an average velocity of 82 km/h until his bike ran out of gas. (Somewhere near Simmi's house, in the 'Hood of Millwoods). Which person went farther? (5 marks)
5. Vectors: Find the displacement vector from position X (Mylan) to position Y (Ryan) if $d_{\text{Mylan}} = 7.1 \text{ m [E]}$ and $d_{\text{Ryan}} = 8.5 \text{ m [W]}$. The reason they are so far apart is because they are in different classes during block 3 and 4. Oh! what a shame, and how will they ever survive? Guess they will make out, whoops, I mean make up during the breaks. (3 marks)