

Unit Test Scenario -1

Leaving from point A, you travel east 12 km to point B alone in the car on a nice sunny day with no wind.

Directional Step #	Units to Travel	Travel Direction	Number of People	Wind Force	Wind Direction	Base Unit Time (+ min.)	People Time (+ min.)	Wind Time (+/- min.)	Direction Time (min.)	Total Distance (km)
1	6	East	1	0	N/A	60.0	6.0	0.0	66.0	12

Unit Test Scenario -2

Leaving from point A, you travel south 21 km to point B with (2) passengers and a weak northerly wind.

Directional Step #	Units to Travel	Travel Direction	Number of People	Wind Force	Wind Direction	Base Unit Time (+ min.)	People Time (+ min.)	Wind Time (+/- min.)	Direction Time (min.)	Total Distance (km)
1	10.5	South	3	1	Northerly	105.0	31.5	-31.5	105.0	21

Unit Test Scenario -3

Leaving from point A, you travel west 4 km to point B with (2) passengers and a strong westerly wind.

Directional Step #	Units to Travel	Travel Direction	Number of People	Wind Force	Wind Direction	Base Unit Time (+ min.)	People Time (+ min.)	Wind Time (+/- min.)	Direction Time (min.)	Total Distance (km)
1	2	West	3	3	Westerly	20.0	6.0	12.0	38.0	4

Unit Test Scenario -4

Leaving from point A, you travel north 11 km to point B with one (1) passenger and a moderate easterly wind.

Directional Step #	Units to Travel	Travel Direction	Number of People	Wind Force	Wind Direction	Base Unit Time (+ min.)	People Time (+ min.)	Wind Time (+/- min.)	Direction Time (min.)	Total Distance (km)
1	5.5	North	2	2	Easterly	55.0	11.0	5.5	71.5	11

Final Test Scenario

1. Depart alone, travel west 17 km, **weather conditions:** weak westerly wind
2. Pick-up 2 passengers, travel north 15 km, **weather conditions:** moderate southerly wind
3. Travel east 9.5 km, **weather conditions:** strong easterly wind
4. Drop-off 1 passenger, travel north 7 km, weather conditions: moderate easterly wind
5. Drop-off 1 passenger, travel east 34 km, **weather conditions:** strong westerly wind
6. Pick-up 3 passengers, travel south 52.5 km, **weather conditions:** no wind (destination reached)

Direction al Step #	Units to Travel	Travel Directio n	Number of People	Wind Force	Wind Directio n	Base Unit Time (+min.)	People Time (+ min.)	Wind Time (+/- min.)	Direction Time (min.)	Accum. Time (min.)	Accum. Distance (km)
1	8.5	West	1	1	Westerly	85.0	8.5	17.0	110.5	110.50	17
2	7.5	North	3	2	Southerly	75.0	22.5	-45.0	52.5	163.00	32
3	4.75	East	3	3	Easterly	47.5	14.25	28.5	90.25	253.25	41.5
4	3.5	North	2	2	Easterly	35.0	7.0	3.5	45.5	298.75	48.5
5	17	East	1	3	Westerly	170.0	17.0	-153	34.0	332.75	82.5
6	26.25	South	4	0	N/A	262.5	105.0	0.0	367.5	700.25	135

Minutes expressed as Hours and Minutes (HH:MM): 11:40

Average minutes per kilometer travelled: 5.18minutes