

MATHEMATICS ANSWERS

Level One

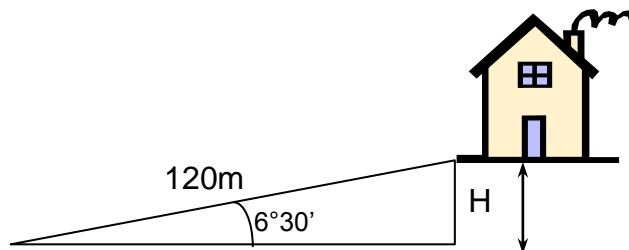
Latitude and Longitude

Task A

1)

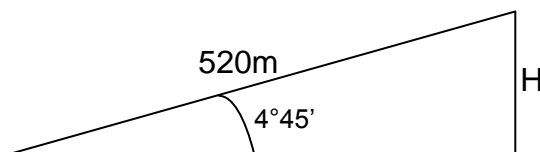
	Decimal		Radians	
	Latitude	Longitude	Latitude	Longitude
Ho Ci Min	10.7667	106.7167	0.1879	1.8626
Kathmandu	27.7000	85.3167	0.4835	1.4891
Apia	13.8000	171.7667	0.2409	2.9979
Madrid	40.4000	3.6833	0.7051	0.0643
Moscow	55.7500	37.7000	0.9730	0.6580
Timaru NZ	44.3833	171.7500	0.7746	2.9976
Beijing City	39.9167	116.4333	0.6967	2.0321

Task B



$$H = \sin(6^\circ 30') \times 120 \\ = 13.584\text{m}$$

Task C



$$H = \sin(4^\circ 45') \times 520 \\ = 43.06 \text{ m rise}$$