



National  
Qualifications  
2023

**X833/77/51**

**Geography  
Supplementary item D  
for Question 2**

TUESDAY, 25 APRIL

9:00 AM – 11:30 AM



\* X 8 3 3 7 7 5 1 \*

## SUPPLEMENTARY ITEM D

Diagram 1 Slope analysis data collected by the students

Distance along slope (m)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
Angle of slope (degrees)	15	11	17	32	22	8	19	15	12	12	10	20	35	37	40
Soil depth(m)	0.63	0.49	0.46	0.54	0.18	0.68	0.47	0.15	0.25	0.31	0.34	0.29	0.20	0.15	0.11
Soil moisture (%)	47.9	34.2	47.3	46.5	43.2	22.8	41.5	20.3	27.3	25.1	27.6	20.4	15.8	11.5	9.4
Soil pH	6.1	6.6	6.4	5.7	5.3	5.7	4.3	5.5	4.6	4.9	4.6	4.4	4.4	4.2	4.3
Average height of plant species (cm)	23	25	14	9	15	23	11	12	12	9	4	2	2	3	1

SUPPLEMENTARY ITEM D (continued)

Diagram 2 Scatter graph comparing angle of slope with average height of plants

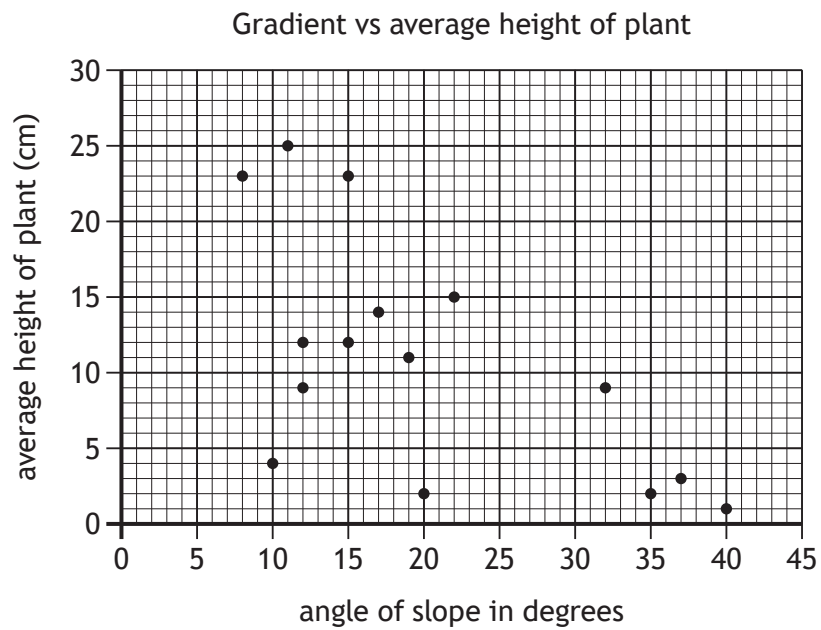


Diagram 3 Pearson's Product Moment correlation coefficient calculation

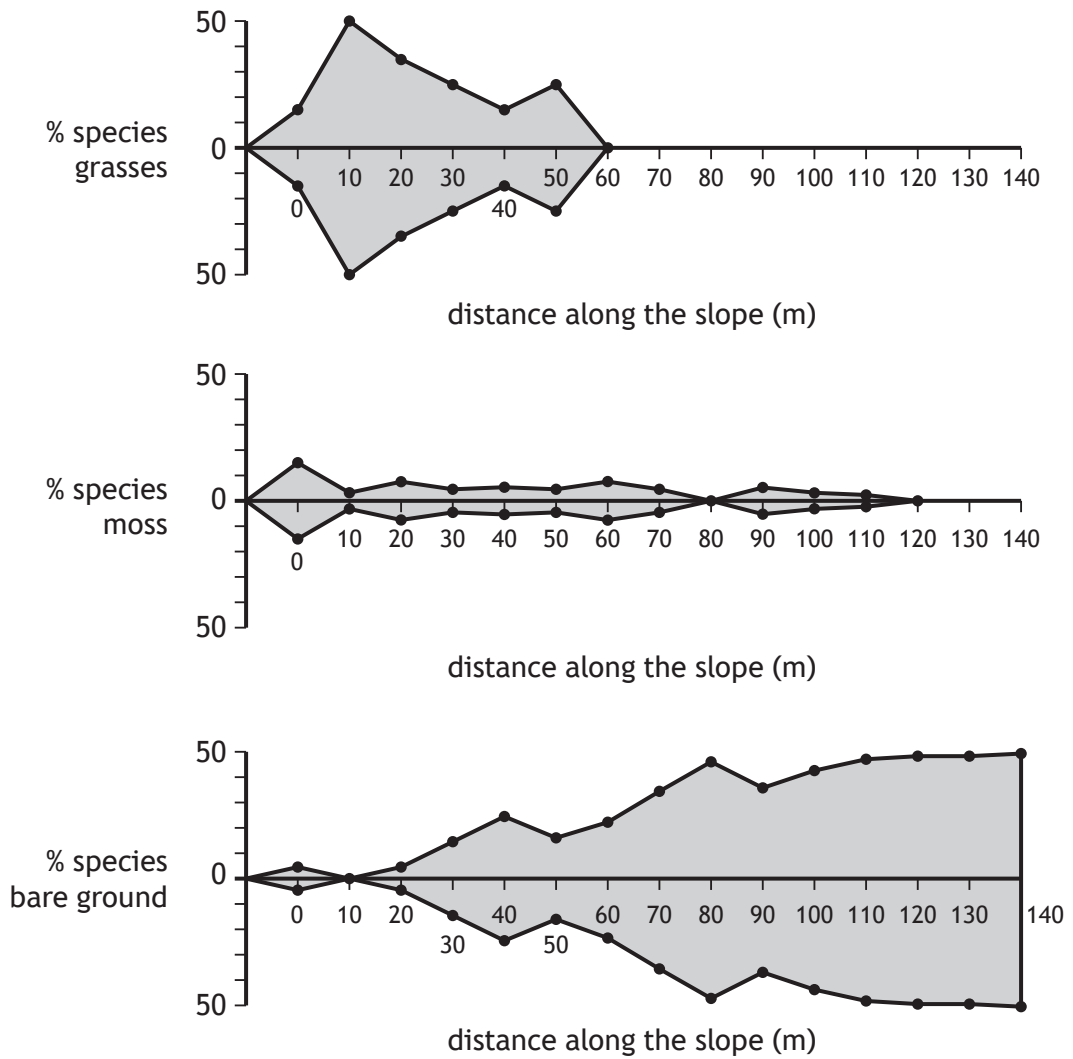
Result of calculation= -0.63

Degrees of freedom	Significance level	Significance level
	95%	99%
13	0.514	0.641

[Turn over

SUPPLEMENTARY ITEM D (continued)

Diagram 4 Kite Diagrams showing vegetation cover along the slope



[END OF SUPPLEMENTARY ITEM D]