

Geologic Mapping


Plymouth-Canton Invitational – 2/1/25

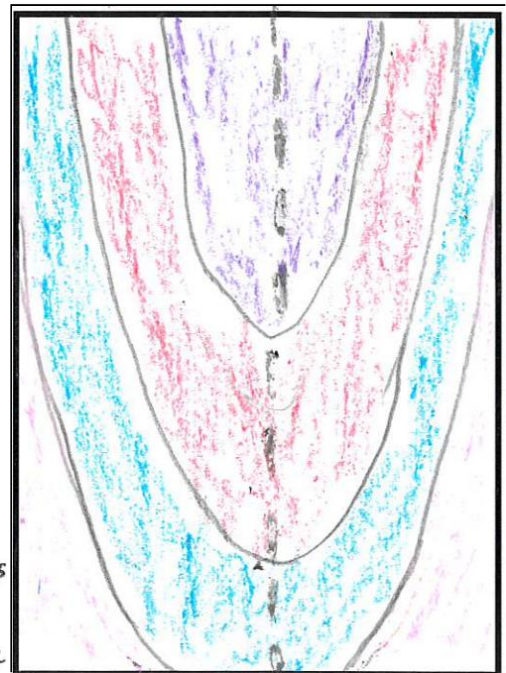
Team No. _____ Team Name _____

Competitor Names _____

- Please write all answers on the answer sheets provided.
 - Please use capital letters for answers to multiple-choice questions.
- There are 7 stations, you will have 6 minutes to work on each.
 - Please make note of which station you are starting at, begin there on your answer sheet.
- Tiebreakers: Q47, Q9, Q1, Q2, Q3...

Station 1		
Q #	Answer	Grading Only
1	E	/1
2	C	/1
3	D	/1
4	Tension	/2
5	Divergent	/1
6	A	/1
7	G N P_F K M_D S D	/5
8	AC	/1

Station 2		
Q #	Answer	Grading Only
9	See rectangle below	/5
10	Plunging	/2
11	Antiform	/1
12	Age of the beds	/1
13	Beds could be overturned	/1
14		/1



+2 → U-shaped contacts
 +2 → Correct color seq.
 Pink → Blue → Red → Purple
 +1 → Fold axis

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Competitor Names _____

Station 3		
Q #	Answer	Grading Only
15	iv viii vii vi ii i v iii OR iv viii vii vi ii i iii v	/5
16	A	/1
17	D	/1
18	Must be parallel to cross-section since fold geometry isn't visible in it	/2
19	D	/1
20	Dip angle of those layers would not be visible in cross-section if strike was parallel	/2
21	C	/2

Station 4		
Q #	Answer	Grading Only
22	A	/2
23	C	/1
24	Primary	/1
25	D	/1
26	iv iii v i vi ii	/2
27	B	/1
28	D	/1
29	C	/1
30	A	/2
31	B	/1

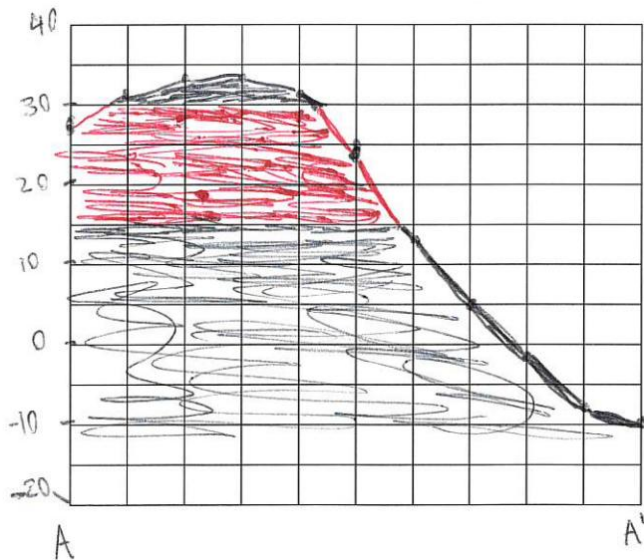
Station 5		
Q #	Answer	Grading Only
32	C	/2
33	-1° OR 1°W	/1
34	20 feet	/1
35	B	/1
36	A	/1
37	B	/1
38	A	/1
39	Bedrock is exposed	/2
40	C	/1
41	Declination (Q33) due to polar wandering	/2

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Competitor Names _____

Station 6		
Q #	Answer	Grading Only
42	D	/1
43	E	/1
44	A	/1
45	A	/1
46	15	/2
47	Use graph below	/5
48	F	/2

Station 7		
Q #	Answer	Grading Only
49	1: Sandstone	/1
50	3: Limestone	/1
51	Porosity & Permeability	/2
52	It would decrease / be very unlikely	/1
53	Basins, faults, unconformities, salt domes, pinch-outs, reefs	/1
54	2020 / 2021	/1
55	28,800	/1
56	East / towards Huron River	/1
57	~2 mi² (1.5-2.5 mi² OK)	/3



- +1 → Topographic profile drawn
 - +1 → Topography: ~27 @ A, -10 @ A'
 - +1 → Two colors used
 - +1 → Horizontal "red" layer
 - +1 → "red" layer 15 units thick
- Must have labelled axis