

EENS_-212 Petrology
Ternary Phase Diagram Practice Exercise

1. For the system X-Y-Z on the next page
 - a. Label the liquidus fields.
 - b. Trace the crystallization histories for the following compositions:

Composition a	Composition b
Composition c	Composition d
Composition e	Composition f
Composition h	Composition i

- c. Give the proportions of all phases present in composition g at 780°.
- d. Give the composition of all phases present in composition a at 850°.
- e. Give the proportions of all phases present in composition d at 800°.
- f. Give the proportions of all phases present in composition c at 900°.
- g. Give the composition of all phases present in composition h at 1000°.
- h. Give the composition and proportion of all phases present in composition b at 800°

- i. At what temperature do the following compositions begin to melt?
 k? g? a? b? h? f?
- j. What is the composition of the first liquid to form when melting composition i?
- k. What is the composition of the first liquid to form when melting composition b?
- l. What is the composition of the first liquid to form when melting composition g?

