

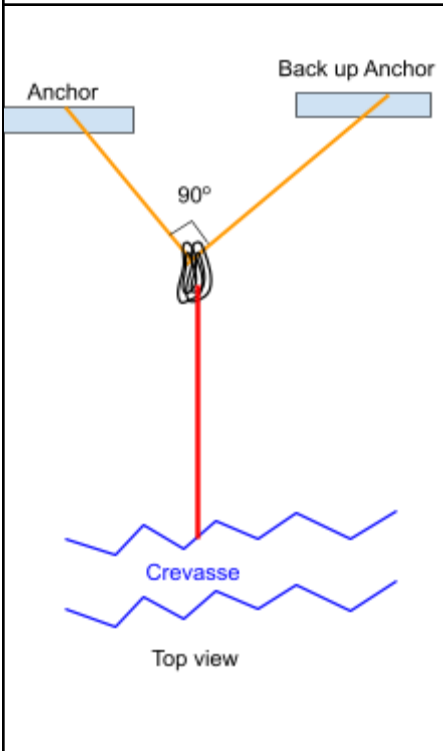
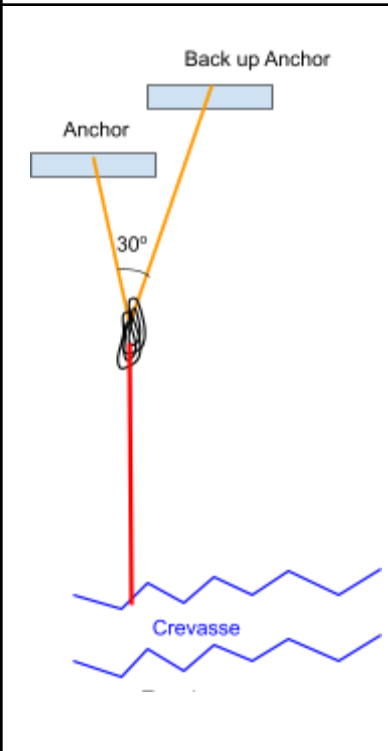
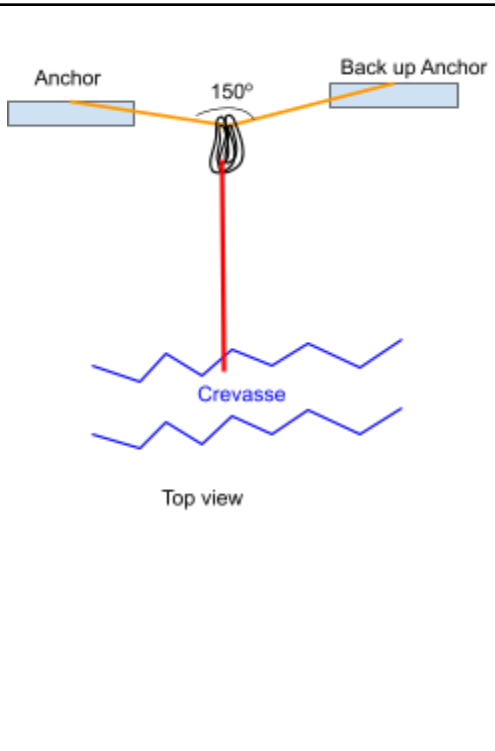
Name: _____

Crevasse Rescue and Trigonometry (Anchors) Student Worksheet

Weight demo: have two people each hold one end of a rope with a weight in the middle. Start with both people holding the rope vertically, then change the angle of the rope so that it is as close to horizontal as possible.

What did you observe when doing the weight demo?

Using your knowledge of trigonometry, assess which of the following anchor and back-up anchor scenarios is the safest by calculating the tension on the anchors (show your work on the following page!)

90° angle between anchors	30° angle between anchors	150° angle between anchors
		

Incorporating your observations from the weight demo, which do you think will be the safest anchor scenario? Explain your choice.

Show your work for calculating the force on each anchor for the given scenarios:

Which anchor scenario is the safest? Why?

Reflect: Does this answer match your prediction? If not, what would you think about if you were to begin this activity over and needed to make a prediction?