

Name _____

Date _____

Advanced Algebra

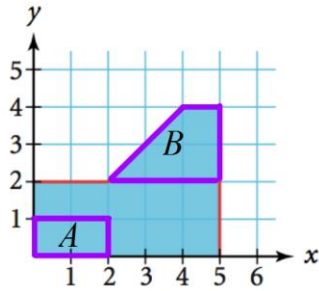
Unit 8: Probability- Assignment #9 Geometric Probability

ONE:

If a point is placed randomly anywhere in the blue region, find the probability that the point lands in Section...

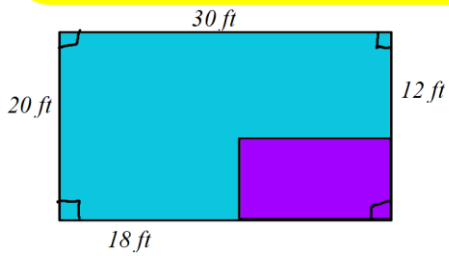
- I. A.
- II. B.
- III. A or B.

IV. What is the probability that the point doesn't land in A or B?



TWO:

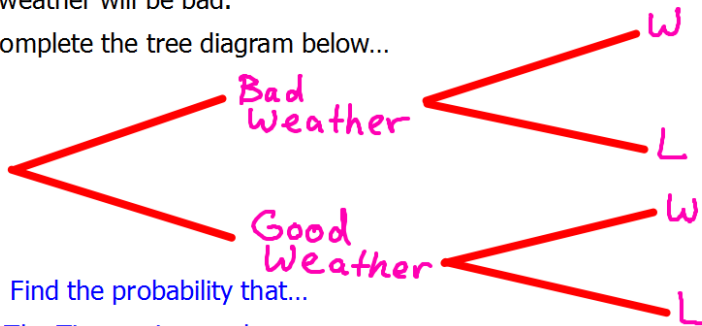
Andy set up a trampoline next to the pool so he can launch himself in. The shallow end of the pool is the area shown in purple. If he is equally likely to land anywhere in the big pool, find the probability he lands in the shallow end?



THREE:

John's baseball team, the Tigers, plays well in sloppy conditions. If the weather is bad, they have a 70% chance of beating their rivals, the Lions. If the weather is good, they have a 50% chance of beating the Lions. They play two games against the Lions on Saturday, and there's an 80% chance the weather will be bad.

1. Complete the tree diagram below...



2. Find the probability that...

A. The Tigers win exactly one game.

B. The Tigers lose both games.

2. Find the sum of the probabilities in your tree diagram, and explain why your answer makes sense.

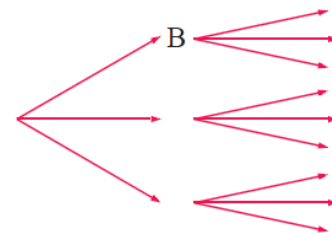
3. Challenge: Suppose the Lion's and Tigers played 6 games, and the weather is bad. Find the probability that the Tigers lose at least one game. (Hint: do not try to draw a tree diagram.)

FOUR:

1 Suppose this spinner is spun twice.



a Copy and complete the branches on the tree diagram shown.



b Find the probability that black appears on both spins.

c Find the probability that yellow appears on both spins.

d Find the probability that different colours appear on the two spins.

e Find the probability that black appears on either spin.