

MA 109: September 11

Linear Functions: Linear Models

Start of Class

Instructor Information

Name:

Email:

Office Hours:

Warm-up Questions

Notes

Scientists have been measuring the populations of different animals in a nearby forest since 2000. Based on their data, the populations are best modeled by the equations given in the table below.

Animal	Population	slope	initial
Wolf	$0.5x + 10$	0.5	$0.5(0) + 10 = 10$
Lizard	$-2x + 137$	-2	$-2(0) + 137 = 137$
Deer	$5x + 462$	5	$5(0) + 462 = 462$
Squirrel	$-x + 532$	-1	$-(0) + 532 = 532$
Fox	$x + 13$	1	$0 + 13 = 13$

1. What populations are growing?

growing = positive slope (population going up)

answer: wolf, deer, fox

2. What population is growing the fastest?

biggest slope

answer: deer

3. What animal had the largest population in 2000?

models start in 2000, so looking for largest value when $x=0$

answer: squirrel

End of Class

Write a summary of what you learned today:

What questions do you have about the material from today?

What do you need to do between now and the next class meeting?