



Answer key for Mathematics 9-12 Cougar

Please note – written responses should be graded by the appropriate rubrics as found on the source page.

Read the article about the cougar at

<http://www.bigcatrescue.org/cougar.htm>

Cougars kill their prey by stalking it to within 30 feet and then pouncing upon it. If a cougar's prey is 90 feet away, and "R" represents the rate of speed a cougar can run, which of these equations can be used to represent this information? "T" = time to contact with prey.

- $T = R(90 - 30)$
- $T = (R \times 30) - 90$
- $T = (R \times 90) - 30$
- $T = R + (90 - 30)$

Cougars swim well but prefer to avoid the water. To avoid swimming, this cougar has traveled around this lake following paths "B" and "C". If the distance "A" is 3 miles and "B" is 4 miles, what is the distance for "C"? Use the Pythagorean theorem to solve your problem

- 2 miles
- 3 miles
- 4 miles
- 5 miles