

## 2025 Bi H1 Q21

### Section: Sustainability and Interdependence

### Topic: Social Behaviour

### Question Summary:

Packs of grey wolves in three Canadian regions were studied. For each region, the total territory area ( $\text{km}^2$ ) and number of packs were recorded. You are asked how many times larger the **\*\*average territory area per pack\*\*** is in region X compared with region Z.

### Worked Solution:

To compare the average territory area per pack in each region:

#### Region X:

Total area =  $240 \text{ km}^2$

Number of packs = 2

Average per pack =  $240 / 2 = 120 \text{ km}^2$

#### Region Z:

Total area =  $840 \text{ km}^2$

Number of packs = 28

Average per pack =  $840 / 28 = 30 \text{ km}^2$

Now compare the averages:

**$120 / 30 = 4$**

Therefore, the average territory area per pack in region X is **\*\*four times larger\*\*** than in region Z.

**Final Answer: C (4.00).**

### Revision Tips:

- When comparing averages, always calculate each mean separately before dividing.

- Social behaviour questions often involve territory size, pack structure, or cooperative hunting.
- Keep units consistent: here all areas were already in  $\text{km}^2$ .