MATHCOUNTS 2017–2018 Newsletter Poster Solution

Solution 1: We are told there are 36 total bears and 3 types of bears at the zoo.

If 5/6 of the bears are *not* **polar bears**, then 5/6 × 36 = 30 of the bears are *either* **black bears** or **grizzly bears**.

If 25% of the bears *are* **grizzly bears**, then 0.25 × 36 = 9 of the bears are **grizzly bears**.

That means there are 30 − 9 = ***21*** **black bears** at the zoo.

Solution 2: Alternatively, if 5/6 of the bears are *not* **polar bears**, then 1/6 × 36 = 6 of the bears *are* **polar bears**.

If 25% of the bears *are* **grizzly bears**, then 0.25 × 36 = 9 of the bears are **grizzly bears**.

Subtracting the number of **polar bears** and **grizzly bears** from the total number of bears, we get 36 − 6 − 9 = ***21*** **black bears**.