

Warm Up

Write your answers clearly and concisely. Round all answers to the hundredths place.

1. A survey of middle school students asked: What is your favorite winter sport? The results are summarized below:

Grade	Snowboarding	Skiing	Ice Skating	TOTAL
6th	68	41	46	155
7th	84	56	70	210
8th	59	74	47	180
TOTAL	211	171	163	545

Using these 545 students as the sample space, a student from this study is randomly selected.

- a. What is the probability of selecting a student whose favorite sport is skiing?

$$P(\text{Ski}) = \frac{171}{545} = \boxed{.31}$$

- b. What is the probability of selecting a 6th grade student?

$$P(6^{\text{th}}) = \frac{155}{545} = \boxed{.28}$$

- c. If the student selected is a 7th grade student, what is the probability that the student prefers ice-skating?

$$P(\text{IS} | 7^{\text{th}}) = \frac{70}{210} = \boxed{.33}$$

- d. If the student selected prefers snowboarding, what is the probability that the student is a 6th grade student?

$$P(6^{\text{th}} | \text{SB}) = \frac{68}{211} = \boxed{.32}$$