

NAME :

GRADE :

## WORKSHEET

**M7L8 – Two-Way Frequency Tables**

**TICKETS** A movie theater is keeping track of the last 800 tickets it sold to two different movies. Of the 578 adult tickets sold, 136 of them were for the animated film and 442 were for the documentary film. Of the 222 student tickets sold, 181 of them were for the animated film and 41 were for the documentary film.

a. Copy and complete the two-way frequency table shown.

	Adult	Student	Totals
Animated		181	
Documentary			
Totals	578		800

b. Construct a relative frequency table of your completed two-way frequency table. Round each percent to the nearest tenth, as necessary.

			Total
Total			

c. Find the probability that a ticket sold is an adult ticket given that it is a documentary ticket. Show your work by writing the formula that you used to perform the calculation.

$$P(\text{adult and documentary}) = \frac{\text{_____}}{\text{_____}}$$

$$P(\text{documentary}) = \frac{\text{_____}}{\text{_____}}$$

$$P(\text{adult ticket} \mid \text{documentary}) = \frac{\text{_____}}{\text{_____}} = \frac{\text{_____}}{\text{_____}}$$