

$$4a) P(\text{less than 5}) = \frac{6}{36} = \frac{1}{6}$$

1 die 6 possible outcomes
 $P(\text{die and a die}) \quad 6 \times 6 = 36 \text{ outcomes}$

$$b) P(> 4 \text{ both dice}) = \frac{4}{36} = \frac{1}{9}$$

$$c) P(\text{one \# is a five}) = \frac{11}{36}$$

$$d) P(\text{both \#s are the same}) = \frac{6}{36} = \frac{1}{6}$$

$$e) P(\text{both \#s are different}) = \frac{30}{36} = \frac{5}{6}$$

$$5) \frac{1}{6} + \frac{5}{6} = \frac{6}{6} = 1$$

$$6b) \frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{4}{4} = 1$$

$$2) a) P(\text{of gr. 9 winning}) = \frac{100}{620} = \frac{5}{31}$$

$$= 16\%$$

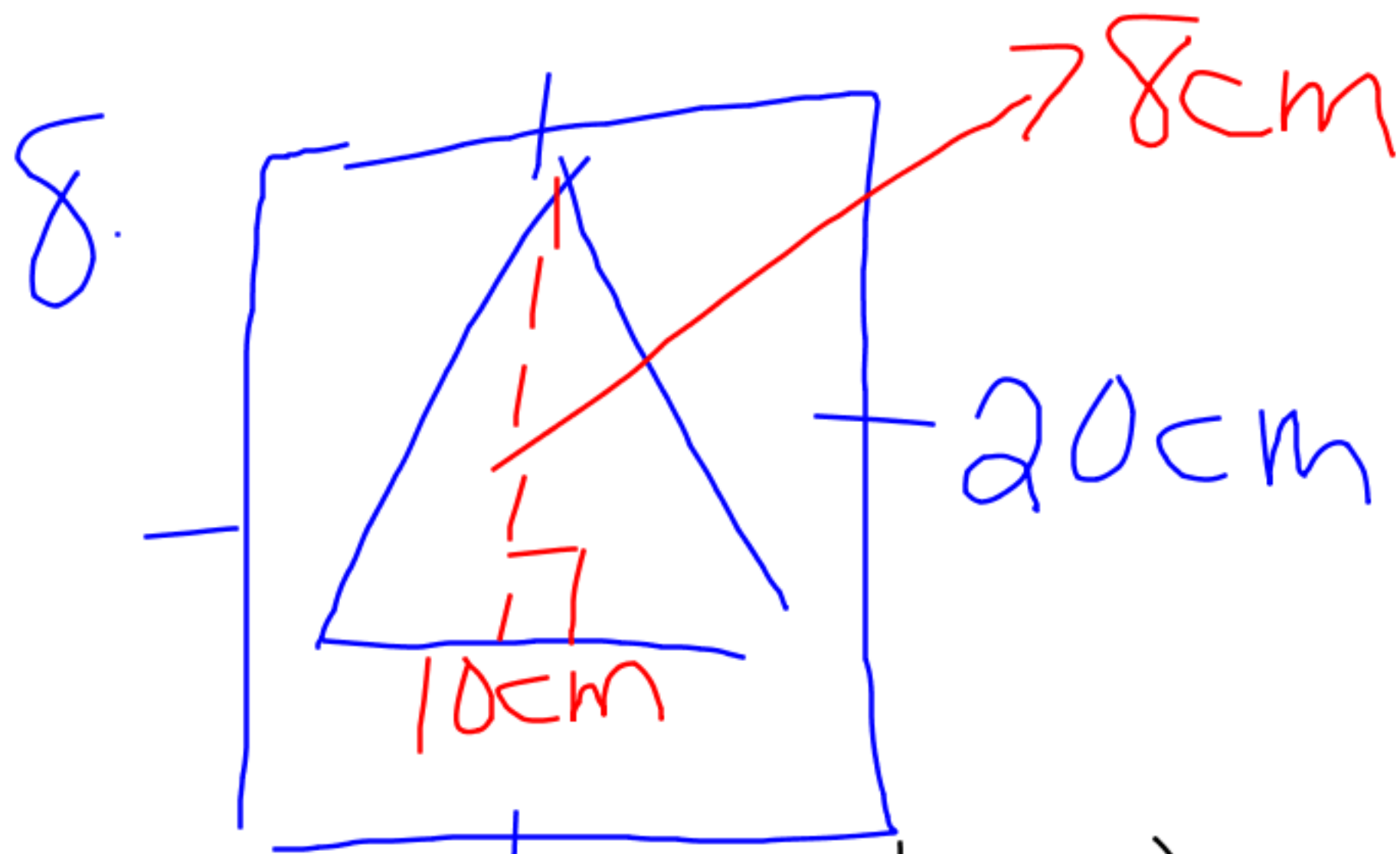
$$b) P(\text{gr. 11 or gr 12}) = \frac{395}{620} = \frac{79}{124}$$

$$= 63.7\%$$

$$c) P(\text{gr. 12, no 11s})$$

$$= \frac{170}{620 - 225} = \frac{170}{395} = \frac{34}{79}$$

$$= 43\%$$



A of rectangle: $L \times w$
 $= 20 \times 20$
 $= 400 \text{ cm}^2$

$P(\Delta \text{ hits}) = \frac{40}{400}$
 $= \frac{1}{10} = 10\%$

A of triangle

$\frac{b \times h}{2}$
 $= \frac{10 \times 8}{2}$
 $= 40 \text{ cm}^2$

2.3 Compare Experimental and Theoretical Probabilities

a) $P(18, 19, 20) = \frac{3}{20} = 15\%$

b) $\frac{75}{80} = 94\%$

c) the more trials, the closer to the theoretical possibility
(theory of large numbers)