

2. 100 people were asked if they bought a coat and/or a shirt at a clothing store that day.

	Bought a Coat	No Coat
Bought a Shirt	3	12
No Shirt	17	68

Find the probability that a randomly selected student:

A. bought a shirt $\frac{3}{20}$

B. did not buy a coat $\frac{4}{5}$

C. bought a coat and a shirt $\frac{3}{100}$

D. didn't buy a coat and didn't buy a shirt $\frac{17}{25}$

E. bought a shirt or a coat $\frac{8}{25}$

F. bought a shirt or did not buy a coat $\frac{83}{100}$

G. bought a shirt given that the person selected bought a coat $\frac{3}{20}$

H. did not buy a coat given that the person selected did not buy a shirt $\frac{4}{5}$

I. bought a coat given that the person selected bought a shirt $\frac{1}{5}$

4. A group of students working on a school play were asked if they are performers or stage crew members.

	Performer	Stage Crew
Boys	14	18
Girls	21	7

Find the probability that a randomly selected student:

A. is a boy $\frac{8}{15}$

B. is a boy or a performer $\frac{53}{60}$

C. is a boy and a performer $\frac{7}{30}$

D. is a stage crew member $\frac{5}{12}$

E. is a stage crew member and a girl $\frac{7}{60}$

F. is a girl or a stage crew member $\frac{23}{30}$

G. is a girl given that the student selected is a performer $\frac{3}{5}$

H. is a stage crew member given that the student selected is a boy $\frac{9}{16}$

I. is a boy or a stage crew member $\frac{13}{20}$

6. 110 9th-12th graders were asked if they preferred a dog or a cat.

	Dogs	Cats	Total
9th Grade	20	5	25
10th Grade	16	4	20
11th Grade	22	6	28
12th Grade	30	7	37
Total	88	22	110

Find the probability that a randomly selected student:

A. is in 10th grade

$$\frac{2}{11}$$

F. is in the 10th grade or prefers cats

$$\frac{19}{55}$$

B. is in 9th grade and prefers dogs

$$\frac{2}{11}$$

G. prefers cats and is in the 11th grade

$$\frac{3}{55}$$

C. is in 12th grade or prefers dogs

$$\frac{19}{22}$$

H. prefers cats given that the person selected is in the 10th grade

$$\frac{1}{5}$$

D. prefers dogs given that the person selected is in the 12th grade

$$\frac{30}{37}$$

I. is in the 11th grade and prefers cats

$$\frac{3}{55}$$

E. is in the 9th grade given that the person selected prefers cats

$$\frac{5}{22}$$