

Use the following information to complete the table. Answer any questions following.

16) There are 14 boys and 18 girls in a class. The teacher allows the students to vote whether they want to take a test Friday or Monday. A total of 6 boys and 10 girls want to take it Friday.

	Friday	Monday	Total
Boys	6	8	14
Girls	10	8	18
Total	16	16	32

**ANSWERS**

16b)  $\frac{1}{2}$

16b) Find the probability of randomly selecting someone who chose Friday.

17b)  $\frac{11}{17} \approx .647$

17)

		Attendance		
		Attending	Not Attending	Total
Class	Junior	42	64	106
	Senior	77	37	114
	Total	119	101	220

18) 36

19) 8

17b) Of the students that attend, what is the probability they are a senior?

$\frac{77}{119} = \frac{11}{17}$

How many outcomes are in each sample set?

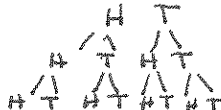
18) rolling two dice

$6 \cdot 6 = 36$

19) flipping 3 coins

$2 \cdot 2 \cdot 2$

19b) list the sample set

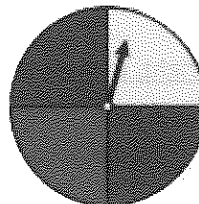


- 19b) HHH, HHT, HTH, HTT, THH, THT, TTH, TTT

20) 48

20) rolling a dice, followed by flipping a coin, followed by spinning the spinner:

$6 \cdot 2 \cdot 4$



21)  $\frac{1}{6} \approx .167$

Using two six-sided dice, what are the probabilities:

21) rolling doubles

$\frac{6}{36}$

22) rolling a sum of 6

$\frac{5}{36}$

22)  $\frac{5}{36} \approx .139$

23) rolling a sum that does NOT equal 7

$1 - \frac{6}{36} = \frac{30}{36}$

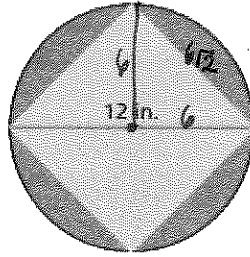
24) rolling a sum greater than 5

$\frac{26}{36}$

23)  $\frac{5}{6} \approx .833$

24)  $\frac{13}{18} \approx .722$

Use the 'dart board' to answer the question:



25) P(dart does NOT land in square region)

$$1 - \frac{6 \sqrt{2} (6 \sqrt{2})}{36\pi} =$$

$$1 - \frac{72}{36\pi}$$

$$1 - .637 \approx .363$$

State independent or dependent for each.

26) Drawing a number out of a bag, replacing it and drawing another.

27) Drawing a marble out of a bag, keeping it and drawing another.

28) Rolling a dice followed by flipping a coin.

29) Spinning a spinner twice.

30) Choosing a student from the class to be president, then choosing someone to be vice president.

Find the probability of each using a bag of tiles numbered 1 – 10.

31) P(choosing an even number)

32) P(choosing a 4, followed by a 9) WITH replacement.

$$\frac{1}{10} \cdot \frac{1}{10}$$

33) P(choosing a 3, followed by an even number WITHOUT replacement.

$$\frac{1}{10} \cdot \frac{5}{9}$$

Bonus.

A survey asks students whether they prefer math or science. Of the 150 male students surveyed, 62% prefer math. Of the female students surveyed 74% prefer math. (Use a table if needed) to determine the number of students in each category if 350 students were surveyed.

a) girl that likes math    b) girl that likes science    c) boy that likes math    d) boy that likes science

128

52

93

57

	male	female	T
math	93	148	241
science	57	52	109
T	150	200	350

ANSWERS

25) .363

26) independent

27) dependent

28) independent

29) independent

30) dependent

31)  $\frac{1}{2}$

32)  $\frac{1}{100} = .01$

33)  $\frac{1}{18} \approx .056$

Bonus

a) 128

b) 52

c) 93

d) 57

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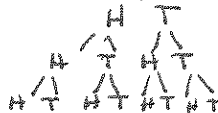
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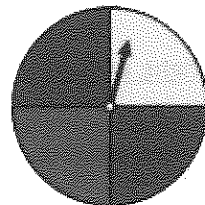
$$2 \cdot 2 \cdot 2$$

19b) list the sample set



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Using two six-sided dice, what are the probabilities:

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$$\frac{6}{36} = \frac{1}{6}$$

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24) rolling a sum greater than 5

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