

REVIEW FOR STATS TEST

- 1) Fifty tickets are numbered 1 - 50 and are placed in a box. You pull out one ticket.
 - a) What's the probability that you'll randomly select a ticket with an even number or a multiple of 5?
 - b) What's the probability that you'll randomly select an odd number and a multiple of 2?

- 2) What is the probability of getting 2 face cards if 2 cards are drawn from a well-shuffled deck without replacement?

- 3) Find the median, the Q1 and Q3 of the set of data:
84, 79, 90, 73, 95, 88, 92, 81, 67

Then make a well constructed box and whiskers plot.

What is the Inner Quartile Range?

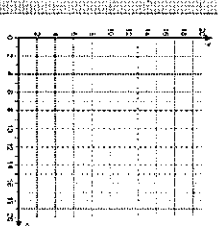
- 4) Find the number at the 20th and the 80th percentile of the set of data:
7, 16, 8, 5, 10, 9, 3, 4, 11, 1

Which number is the outlier?

The table shows the relationship between the field goals attempted and points scored by one basketball player over a 6-game period.

Field goals attempted (x)	8	6	10	9	7	10
Points scored (y)	12	9	14	14	11	15

- 1) Draw a scatterplot to show how the field goals attempted and points scored are related.
- 2) Find the line of best fit (by hand).
- 3) Using your line of best fit equation, predict the points scored if 20 field goals are attempted.
- 4) How many field goals were attempted if he scored 10 points?



6) Assume that the data which reflects the "heights of women" is normally distributed.

Heights of Women	
Mean =	64.5 in.
Standard Deviation =	2.5 in.

Draw a normal distribution curve for this data. Include 3 standard deviations from the mean in each direction.

What percentage of women could be 67 inches tall or taller?

7) Students that took the SAT in 2012 had a mean score of 514 on the math section.
The standard deviation for this section was 114.
If a student scored a 340, what was his z-score?

8)

The table shows the number of employees that responded to the survey for the District Superintendent of November 30, 1998. Find (a) the probability that a child was born in a specific year, (b) the probability that an employee's annual salary is a certain amount, (c) the probability that an employee's annual salary is a certain amount, and (d) the probability that an employee's annual salary is a certain amount.

Age Group	Male	Female	Total
18-24	59	75	134
25-34	8	15	23
35-44	11	21	32
45-54	9	19	28
55-64	1	1	2
65-74	1	1	2
75-84	1	1	2
85-94	1	1	2
95-104	1	1	2
105-114	1	1	2
115-124	1	1	2
125-134	1	1	2
135-144	1	1	2
145-154	1	1	2
155-164	1	1	2
165-174	1	1	2
175-184	1	1	2
185-194	1	1	2
195-204	1	1	2
205-214	1	1	2
215-224	1	1	2
225-234	1	1	2
235-244	1	1	2
245-254	1	1	2
255-264	1	1	2
265-274	1	1	2
275-284	1	1	2
285-294	1	1	2
295-304	1	1	2
305-314	1	1	2
315-324	1	1	2
325-334	1	1	2
335-344	1	1	2
345-354	1	1	2
355-364	1	1	2
365-374	1	1	2
375-384	1	1	2
385-394	1	1	2
395-404	1	1	2
405-414	1	1	2
415-424	1	1	2
425-434	1	1	2
435-444	1	1	2
445-454	1	1	2
455-464	1	1	2
465-474	1	1	2
475-484	1	1	2
485-494	1	1	2
495-504	1	1	2
505-514	1	1	2
515-524	1	1	2
525-534	1	1	2
535-544	1	1	2
545-554	1	1	2
555-564	1	1	2
565-574	1	1	2
575-584	1	1	2
585-594	1	1	2
595-604	1	1	2
605-614	1	1	2
615-624	1	1	2
625-634	1	1	2
635-644	1	1	2
645-654	1	1	2
655-664	1	1	2
665-674	1	1	2
675-684	1	1	2
685-694	1	1	2
695-704	1	1	2
705-714	1	1	2
715-724	1	1	2
725-734	1	1	2
735-744	1	1	2
745-754	1	1	2
755-764	1	1	2
765-774	1	1	2
775-784	1	1	2
785-794	1	1	2
795-804	1	1	2
805-814	1	1	2
815-824	1	1	2
825-834	1	1	2
835-844	1	1	2
845-854	1	1	2
855-864	1	1	2
865-874	1	1	2
875-884	1	1	2
885-894	1	1	2
895-904	1	1	2
905-914	1	1	2
915-924	1	1	2
925-934	1	1	2
935-944	1	1	2
945-954	1	1	2
955-964	1	1	2
965-974	1	1	2
975-984	1	1	2
985-994	1	1	2
995-1004	1	1	2

9) A school administrator made the following observations about the weather and schools closing.
During the winter, there was heavy snow on 40% of the days.
On the days that there was heavy snow, schools closed 80% of the time.
On the days there was light snow, schools were open 70% of the time.
Create a tree diagram to find the probability that a day will start out with heavy snow and school will be open.

10)

Education and Salary of Employees	Under \$30,000	\$30,000 to \$50,000	Over \$50,000
Less than High School	68	36	2
High School	112	97	14
Some College	101	193	142
College Degree	13	177	245

P(employee has less than a high school education)
P(employee earns under \$20,000)
P(employee earns over \$30,000 and has less than a high school education)
P(employee earns over \$30,000 | employee has only high school education)
P(employee has only a high school education or less | employee earns over \$30,000)
P(employee has attended at least some college | employee earns at least \$20,000)

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6-16, 28-32,
42-48 (no calc),
55-59 (no calc),