Name:_____ Period:_____

# HW 5-1: Two-Way Tables

Score:

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_____%

Complete the following Two Way Tables and answer the Questions relating to them. **Round all decimals to the nearest hundredth and round to the nearest whole percent.**

**Situation 1-** The audience at a movie theater was categorized for the screening of the new Disney movie. There were 15 male children and 23 female children. There were also 24 male adults. If there were a total of 92 people watching the movie, complete a two way table summarizing the data.

|  |  |  |  |
|---|---|---|---|
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

1. What percentage of the total moviegoers were male?

2. What fraction of the females were children?

3. What percentage of the children were male?

4. What fraction of the total moviegoers were adult females?

5. Write the ratio of total adults compared to total moviegoers as a decimal.

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**Situation 2-** Mr. Peterson's 8th grade math students were asked which hand was dominant. He found that 5 boys and 7 girls were left-handed. He has a total of 121 students and 68 of them are male. Complete a two way table summarizing the data.

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|---|---|---|---|
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|  |  |  |  |
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6. What fraction of the total students are female?

7. Of the right-handed students, what percentage are male?

8. What fraction of the total students are left handed?

9. Write the ratio of right-handed female students compared to the total students as a decimal.

10. What percentage of male students are right handed?

**Situation 3-** A poll was taken asking political party affiliation and favorite ice cream flavor. Some of the results are shown in the table below. Complete the two way table summarizing the data.

|  | Vanilla | Chocolate | Strawberry |  |
|---|---|---|---|---|
| Republican | 75 | 53 |  |  |
| Democrat |  | 63 |  | 156 |
|  | 147 |  | 69 |  |

11. What percentage of Republicans prefer vanilla?

12. Of the total people surveyed, what fraction prefers strawberry ice cream?

13. Write the ratio of chocolate lovers among the total number of Democrats as a decimal.

14. What percentage of people who prefer strawberry are Democrats?

15. What fraction of those who like vanilla best are Republicans?

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**Situation 4-** Students in Lehi Jr. High were asked which university they cheered for in sports and whether their family owned an iPad. Of the 1500 total students in the school, 778 root for BYU. There are 467 student's families that have iPads and 231 of them cheer for the University of Utah. Construct a two way table summarizing the data.

|  |  |  |  |
|---|---|---|---|
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|  |  |  |  |
|  |  |  |  |

16. Write the ratio of Utah supporters to the total students as a decimal.

17. What percentage of Utah fans do not own an iPad?

18. What fraction of iPad owners cheer for BYU?

19. What fraction of total students are Utah fans?

20. What percentage of BYU fans own an iPad?

Use the table below to answer questions 21-24

| | | | Total |
|---|---|---|---|
| | | | |
| | | | |
| Total | | | |

75 customers at a fast food restaurant were asked if they preferred hamburgers or hot dogs more and whether they preferred french fries or onion rings more.  Out of 44 customers that liked french fries, 26 liked hamburgers.  There were 40 customers that liked hamburgers.

21. Construct a two-way table summarizing the data. (use table above)

22. What percent of customers liked hot dogs more than hamburgers?

23. What percent of customers that liked onion rings also like hot dogs?

24. What percent of customers liked French fries more than onion rings?

Use the table below to answer questions 25-28.

| | House | Apartment | Total |
|---|---|---|---|
| Have TV | 34 | | 63 |
| Don't Have TV | | 24 | |
| Total | 47 | | |

The two way table above shows people that live in a house or an apartment compared to whether they have TV or not.

25. Fill in the missing data on the table above.

26. What percent of people that live in a house have TV?

27. What percent of people don't have TV?

28. What percent of people live in an apartment and have TV?