## Titanic Maths

The Titanic set sail on its famous journey at 12:00 noon on April 10, 1912. The first stop was Cherbourg, France. After picking up passengers, the Titanic once again set sail at 8:10pm toward Queenstown, Ireland. With 2207 people on board this great vessel left Queenstown toward New York at 1:30pm on Thursday April 11, 1912. The Titanic sailed on Friday April 12 and Saturday April 13 in clear weather. On Sunday, April 14 at 11:40pm, the Titanic struck an iceberg. At 12:00am the captain was told that the Titanic would only stay afloat for a couple of hours. At 2:20am Monday April 15, 1912 the Titanic sank into the sea.

1. How long was the Titanic at sail from the time it first set sail until it finally sank?
2. There were 2207 passengers on board the Titanic at the time that it sank. 14 of the lifeboats held 65 passengers each, 2 were emergency cutters which held 40 people each and 4 were collapsible boards which held 47 people each. How many people would all of these lifeboats hold?
3. When the Titanic left Queenstown, Ireland, it had 2207 people on board. How many people would have been without a lifeboat if all the boats were filled to capacity?
4. Only 712 people survived the sinking of the Titanic. How many more people could have been saved?
5. How many more lifeboats were needed to save all people aboard the Titanic?

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Use the following information to answer the next questions (approximate pricings)

|  | Then | Now |
| :--- | :---: | :---: |
| 1st class ticket with parlor | $£ 2,923$ | $£ 33,608$ |
| 2nd class ticket with berth | $£ 100$ | $£ 1,158$ |
| 2nd class ticket | $£ 40$ | $£ 463$ |
| 3rd class ticket | $£ 26$ | $£ 115-£ 309$ |

1. If 105 very rich people bought a firs $\dagger$ class ticket with a parlor, how much money would the White Star Co. have made from them?
2. How much money would a skilled shipyard worker, working on the Titanic make in a year?
3. Had the rest of the first class passengers bought first class tickets with a berth, how much money would the White Star Co. have made from them?
4. How much money did the White Star Co. make from sale of second class tickets?
5. How much money did the White Star Co. make from sale of third class tickets?
6. What is the total sum of money collected from ticket sales?
7. Skilled shipyard workers earned $£ 6.70$ a week. How much money is that an hour if one worked a 40 hr . week?
8. An unskilled shipyard worker made $£ 3.30$ (or less) a week working on the Titanic. How much less did they earn in a year compared to a skilled shipyard worker?
9. What percent of the people who were on the Titanic survived?
10. The Titanic cost $£ 5,041,312.50$ to build. Today, building the same type of ship would cost $£ 268,870,000.00$. How much more money would it cost to build the Titanic today?
11. Today, $£ 1=5.5 \mathrm{dhs}$. How much would each ticket cost today in AED?

## Percentages

Total Number of Passengers $=2207$
Lifeboat Capacity: 1,178

There were 20 boats in all: 14 lifeboats, each designed to carry 65 passengers; 2 emergency boats, each with a capacity of 40 passengers; and 4 Engelhardt (collapsible) boats, each capable of carrying 47 passengers.

## How to work out percentages:

To find $10 \%=\div 10$
To find $5 \%=$ find $10 \%$ first and then half
To find $1 \%=\div 100$
e.g. to find $32 \%$ of 420

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You will need this information to help you solve the percentage problems
324 1st class passengers.
277 2nd class passengers.
708 3rd class passengers.
885 crew members.
13 postmen/musicians, none survived.
Grand total: 2,207 on board.
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$10 \%=42$
$10 \%=42$
$10 \%=42$
Step 1: break the percentage down into manageable chunks
$1 \%=4.2$
Step 2: work out the percentage of each chunk
Step 3: add it all together.
$1 \%=4.2$
$32 \%=134.4$
Round your answers to the nearest whole number, e.g. if you calculate $200 . \underline{8} 8$ people this would be rounded to 201, because the tenths is an 8 which means you round up.

Round up for 5, 6, 7, 8, 9
Round down (keep the number as it is) for $0,1,2,3,4$

1. $62 \%$ of the first class passengers survived. How many passengers is that?
2. $43 \%$ of the second class passengers survived. How many passengers is that?
3. $26 \%$ of the third class passengers survived. How many passengers is that?
4. $24 \%$ of the crew survived. How many crew members is that?
