

Mixed Percent Questions

1. A 3.5 kg roast shrinks by 15% when cooked. What is its weight after cooking?
2. Joanna received 32 marks out of 38 on a Maths test. What was her percent mark?
3. To estimate the total cost of a house, some builders add 12% onto the construction costs for fees and charges. If the construction costs amount to \$135 000, estimate the total cost of a house.
4. You own 22% of a block of units. What is the value of your share if the units are valued at \$250 000?
5. A steel bridge that is 800 metres long when the temperature is 0°C will expand by 0.0012% for each degree Celsius. How much does it expand when the temperature reaches 400°C ?
6. Complete this markbook for your Maths teacher, by calculating the percent each student received on each test.

Student	Algebra		Geometry	
	Possible Marks	%	Possible Marks	%
	45		55	
Jim Boy	34		51	
Lilac	42		27	
Moonbeam	21		36	

7. You are making your own 'trail mix'. You like the mix to contain 25% peanuts, 40% sultanas and the rest dried fruit. How much of each ingredient if you want to make 3 kg of trail mix?
8. A boilermaker at the Stanwell power station was making a flange for the cooling tower from a sheet of mild steel. The sheet weighed 880 kg before cutting. There was a 15% wastage of steel when he cut the flange. How much did the flange weigh?
9. A chef buys a whole rump for a banquet.
 - a. The rump weighs 6 kg. 10% of it's weight is lost when it is trimmed. How much does it weigh after it is trimmed?
 - b. A further 20% of the weight is lost when it is cooked. How much does it weigh now (round to nearest 100g)?

- c. About how many 300g portions can be served from the rump?
- d. If the whole rump cost the chef \$5 per kilo, what is the cost of the meat for each portion?
10. In a world with 5 billion people:
70% live in under-developed countries.
55% don't have access to adequate medical facilities.
Translate these percentages into actual numbers (rounded off sensibly).
11. Concrete consists of a mixture of 30% sand, 50% gravel and 20% cement by volume. How much would of each would you need for a rectangular concrete patio whose length is 7500 mm, width is 3500 m and thickness is 60 mm?
12. I received a 6% pay rise, and found that my gross pay increased by \$51 per week. What was my original salary?
13. A farmer changed his fertilizer and found that he had a 30% greater yield of alfalfa. If the new fertilizer gave a yield of 4.5 tonnes of alfalfa, what was the yield with the original fertilizer?
14. I have two cubes - one with a side length of 2 cm, and one with a side length of 3 cm. What percentage of the volume of the larger cube is the volume of the smaller cube?