## More Percentage Questions

1. Tanya says "an increase from 40 to 80 is a $100 \%$ increase". Scott says "so a decrease from 80 to 40 is a $100 \%$ decrease".

Who is correct, if anyone, and why? Who is wrong, if anyone, and why?
2. Ned weeds $20 \%$ of his garden every day for a week. He thinks he will have weeded $140 \%$ of his garden by the end of the week. Comment on this.
3. Nellie plans to weed $20 \%$ of the remaining unweeded portion of her garden every day. How long will it take her to weed her garden?
4. The headmaster boasts at Speech Day that 55\% of his fifth year gained a certificate in English and 45\% gained certificate in mathematics, so $100 \%$ of the fifth gained at least one of these two subject certificates. Is he correct? Could he possibly be correct?
5. A newspaper reports that a country has the worst unemployment problem in the world as last year the number of unemployed people rose by $100 \%$. Is the newspaper correct to make this deduction? Give reasons for your argument.
6. If a quantity is increased by $200 \%$ how many times bigger is it? If it is increased by 100\% how many times bigger is it?
7. In 2000 a club had 600 members. In 2001 its membership dropped by $10 \%$. The club membership secretary told the committee that the club must increase its membership by $10 \%$ to get it back to 600 members as in 2000. The club treasurer replied that in fact the membership must increase by just over $11 \%$ for it to get back to 600.

Who is correct, and why?
Should the club secretary and the club treasurer swap positions, and why?

