





Knowing when to round numbers

When you work with numbers:

- sometimes you need to be exact
- sometimes having a rough idea of the number is adequate

Think about these situations. **Is rounding appropriate or do we need to be exact?**

<p>A race judge says: Well done everyone, the winner took about 10 seconds.</p> <p>Exact number or rounded? The athletes want exact times, correct to parts of a second! The race judge should say: well done, the winner finished in 10.26 seconds.</p>	
<p>A man asks a policeman the time: It is 23 seconds past 9.16 am on 1st April 2007 AD.</p> <p>Exact or rounded? Too much information! The policeman should round the time to the nearest quarter of an hour: it's about a quarter past nine.</p>	
<p>A customer asks the cashier how much their bill comes to: your bill is about £40.</p> <p>Exact or rounded? Oh dear, that's not good enough! The customer needs to know exactly what their bill comes to. The cashier should say: your bill comes to £38.82, please.</p>	
<p>A window fitter is buying some new glass for a window. The shopkeeper asks them what size they need: Oh, about 1 metre by $\frac{1}{2}$ a metre.</p> <p>Exact or rounded? No, the window fitter should give an accurate, exact measurement if the glass is going to fit in the frame. The fitter should have asked for: 97.5cm by 51.3cm please.</p>	
<p>A friend asks how long your book is that you're reading: It's 198 pages and two paragraphs long.</p> <p>Exact or rounded? You don't need to be that exact, you could have rounded it to the nearest page: it's about 200 pages long.</p>	