Surds:

1. $\sqrt{3} \times 2$

2. $3\sqrt{5} \times 2\sqrt{5}$

3. $\sqrt{8}$

4. $\sqrt{12} + \sqrt{27}$

5. $(\sqrt{8}+1)(\sqrt{2}-3)$

Extension:

[SMC 2014 Q24] Which of the following is smallest?

- $10-3\sqrt{11}$
- $8-3\sqrt{7}$
- $5-2\sqrt{6}$
- $9-4\sqrt{5}$
- $7-4\sqrt{3}$

[SMC 2012 Q21] Which of the following numbers does *not* have a square root in the form $x+y\sqrt{2}$, where x and y are positive integers?

- $17+12\sqrt{2}$
- $22+12\sqrt{2}$
- $38+12\sqrt{2}$
- $54+12\sqrt{2}$
- $73+12\sqrt{2}$