

Surds quiz

Sunday, November 03, 2013

8:06 PM

- ① Is $124.27283\dots$ a rational number? **NO**
- ② Is $0.333\dots$ a rational number? **YES**
- ③ Is $\sqrt{5}$ a surd? **YES**
- ④ Simplify $\sqrt{20} = \sqrt{4} \times \sqrt{5} = 2 \times \sqrt{5} = 2\sqrt{5}$
- ⑤ Simplify $\sqrt{72} = \sqrt{9} \times \sqrt{8} = 3 \times \sqrt{4} \times \sqrt{2} = 3 \times 2 \times \sqrt{2} = 6\sqrt{2}$
- ⑥ Write $4\sqrt{3}$ as an entire surd. $4 \times \sqrt{3} = \sqrt{16} \times \sqrt{3} = \sqrt{48}$
- ⑦ Write $3\sqrt{7}$ as an entire surd. $3 \times \sqrt{7} = \sqrt{9} \times \sqrt{7} = \sqrt{63}$
- ⑧ Simplify $\sqrt{28} \times \sqrt{20} = \sqrt{4} \times \sqrt{7} \times \sqrt{4} \times \sqrt{5} = 2 \times \sqrt{7} \times 2 \times \sqrt{5} = 4\sqrt{35}$
- ⑨ Simplify $2\sqrt{3} \times 4\sqrt{6} = 8\sqrt{18} = 8 \times \sqrt{9} \times \sqrt{2} = 8 \times 3 \times \sqrt{2} = 24\sqrt{2}$
- ⑩ Simplify $3\sqrt{3} + 4\sqrt{3} = 7\sqrt{3}$
- ⑪ Simplify $\sqrt{45} + 2\sqrt{5} = \sqrt{9} \times \sqrt{5} + 2\sqrt{5} = 3\sqrt{5} + 2\sqrt{5} = 5\sqrt{5}$