



## SURDS

### EQUIVALENT SURDS

## NO CALCULATOR

Ref: G182. **1F1**

<b>A1</b> Express $4\sqrt{2}$ in the form $\sqrt{a}$	<b>A2</b> Express $7\sqrt{2}$ in the form $\sqrt{a}$	<b>A3</b> Express $10\sqrt{2}$ in the form $\sqrt{a}$	<b>A4</b> Express $11\sqrt{2}$ in the form $\sqrt{a}$
<b>B1</b> Express $\sqrt{8}$ in the form $a\sqrt{2}$ where $a$ is an integer.	<b>B2</b> Express $\sqrt{18}$ in the form $a\sqrt{2}$ where $a$ is an integer.	<b>B3</b> Express $\sqrt{50}$ in the form $a\sqrt{2}$ where $a$ is an integer.	<b>B4</b> Express $\sqrt{128}$ in the form $a\sqrt{2}$ where $a$ is an integer.
<b>C1</b> Express $2\sqrt{5}$ in the form $\sqrt{a}$	<b>C2</b> Express $3\sqrt{6}$ in the form $\sqrt{a}$	<b>C3</b> Express $6\sqrt{3}$ in the form $\sqrt{a}$	<b>C4</b> Express $5\sqrt{5}$ in the form $\sqrt{a}$
<b>D1</b> Express $\sqrt{75}$ in the form $a\sqrt{3}$ where $a$ is an integer.	<b>D2</b> Express $\sqrt{54}$ in the form $a\sqrt{6}$ where $a$ is an integer.	<b>D3</b> Express $\sqrt{150}$ in the form $a\sqrt{6}$ where $a$ is an integer.	<b>D4</b> Express $\sqrt{180}$ in the form $a\sqrt{5}$ where $a$ is an integer.
<b>E1</b> Express $\sqrt{48}$ in the form $a\sqrt{b}$ where $a$ and $b$ are integers and $a \neq 1$	<b>E2</b> Express $\sqrt{45}$ in the form $a\sqrt{b}$ where $a$ and $b$ are integers and $a \neq 1$	<b>E3</b> Express $\sqrt{147}$ in the form $a\sqrt{b}$ where $a$ and $b$ are integers and $a \neq 1$	<b>E4</b> Express $\sqrt{112}$ in the form $a\sqrt{b}$ where $a$ and $b$ are integers and $a \neq 1$



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Ref: G182. **1F1**

<b>A1</b> Express $4\sqrt{2}$ in the form $\sqrt{a}$ $\sqrt{32}$	<b>A2</b> Express $7\sqrt{2}$ in the form $\sqrt{a}$ $\sqrt{98}$	<b>A3</b> Express $10\sqrt{2}$ in the form $\sqrt{a}$ $\sqrt{200}$	<b>A4</b> Express $11\sqrt{2}$ in the form $\sqrt{a}$ $\sqrt{242}$
<b>B1</b> Express $\sqrt{8}$ in the form $a\sqrt{2}$ where $a$ is an integer. $2\sqrt{2}$	<b>B2</b> Express $\sqrt{18}$ in the form $a\sqrt{2}$ where $a$ is an integer. $3\sqrt{2}$	<b>B3</b> Express $\sqrt{50}$ in the form $a\sqrt{2}$ where $a$ is an integer. $5\sqrt{2}$	<b>B4</b> Express $\sqrt{128}$ in the form $a\sqrt{2}$ where $a$ is an integer. $8\sqrt{2}$
<b>C1</b> Express $2\sqrt{5}$ in the form $\sqrt{a}$ $\sqrt{20}$	<b>C2</b> Express $3\sqrt{6}$ in the form $\sqrt{a}$ $\sqrt{54}$	<b>C3</b> Express $6\sqrt{3}$ in the form $\sqrt{a}$ $\sqrt{108}$	<b>C4</b> Express $5\sqrt{5}$ in the form $\sqrt{a}$ $\sqrt{125}$
<b>D1</b> Express $\sqrt{75}$ in the form $a\sqrt{3}$ where $a$ is an integer. $5\sqrt{3}$	<b>D2</b> Express $\sqrt{54}$ in the form $a\sqrt{6}$ where $a$ is an integer. $3\sqrt{6}$	<b>D3</b> Express $\sqrt{150}$ in the form $a\sqrt{6}$ where $a$ is an integer. $5\sqrt{6}$	<b>D4</b> Express $\sqrt{180}$ in the form $a\sqrt{5}$ where $a$ is an integer. $6\sqrt{5}$
<b>E1</b> Express $\sqrt{48}$ in the form $a\sqrt{b}$ where $a$ and $b$ are integers and $a \neq 1$ $4\sqrt{3}$	<b>E2</b> Express $\sqrt{45}$ in the form $a\sqrt{b}$ where $a$ and $b$ are integers and $a \neq 1$ $3\sqrt{5}$	<b>E3</b> Express $\sqrt{147}$ in the form $a\sqrt{b}$ where $a$ and $b$ are integers and $a \neq 1$ $7\sqrt{3}$	<b>E4</b> Express $\sqrt{112}$ in the form $a\sqrt{b}$ where $a$ and $b$ are integers and $a \neq 1$ $4\sqrt{7}$