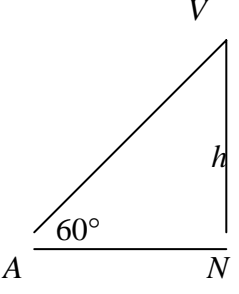
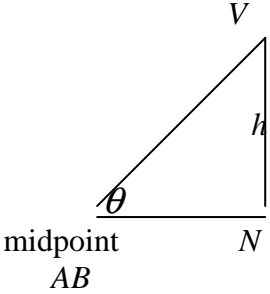
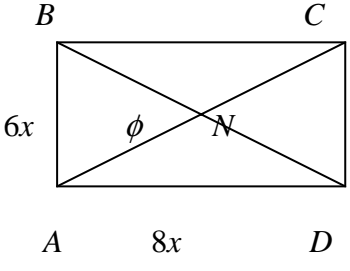


Question number	Scheme	Marks
10.	<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 30%;">  </div> <div style="width: 65%;"> <p>(a) <math>AC = 10x</math>  <math>\frac{VN}{5x} = \tan 60^\circ</math>  <math>VN = 5x\sqrt{3}</math></p> </div> </div> <p><math>VA^2 = (5x)^2 + (5\sqrt{3}x)^2</math> or</p> <div style="display: flex; justify-content: space-between; align-items: flex-start; margin-top: 20px;"> <div style="width: 30%;">  <p>midpoint AB</p> </div> <div style="width: 65%;"> <p>(b) <math>\frac{5x}{VA} = \cos 60^\circ</math>  <math>VA = 10x</math></p> <p>(c)</p> <math display="block">\tan \theta = \frac{VN}{4x} = \frac{5x\sqrt{3}}{4x} = \frac{5\sqrt{3}}{4}</math> <math display="block">\theta = 65.20\dots = 65.2^\circ</math> </div> </div> <div style="display: flex; justify-content: space-between; align-items: flex-start; margin-top: 20px;"> <div style="width: 30%;">  </div> <div style="width: 65%;"> <p>(d)</p> <math display="block">\tan \frac{1}{2}\phi = \frac{3}{4}</math> <math display="block">\phi = 2 \times 36.86\dots = 73.7^\circ</math> <p>(or obtuse <math>106.3^\circ</math>)</p> </div> </div> <p>or</p> $(6x)^2 = (5x)^2 + (5x)^2 - 2(5x)(5x)\cos\phi$ <p>(e)</p> $\text{Vol.} = \frac{1}{3} \times \text{base area} \times \text{height}$ $\frac{1}{3} \times 48x^2 \times 5x\sqrt{3} = 1110$ $x^3 = \frac{1110 \times 6}{48 \times 5\sqrt{3}} = 8.010\dots$ $x = 2.0008\dots = 2$	<p>B1</p> <p>M1A1ft</p> <p>A1</p> <p>M1A1ft</p> <p>A1 cao</p> <p>M1A1ft</p> <p>A1</p> <p>M1A1</p> <p>A1</p> <p>M1</p> <p>A1ft</p> <p>A1</p> <p>(16)</p>

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