

SMART EXAM RESOURCES
0580 EXTENDED MATH
TOPIC: TRIGONOMETRY
SUB-TOPIC: USING A CALCULATOR
QUESTIONS BASED ON TRIGONOMETRY
SET-1-QP-MS

1

(a) Use your calculator to work out

$$\frac{1 - (\tan 40^\circ)^2}{2(\tan 40^\circ)}$$

Answer(a) [1]

(b) Write your answer to **part (a)** in standard form.

Answer(b) [1]

MARK SCHEME:

(a) 0.176 (b) 1.76×10^{-1}	1 1√	ft their answer to (a)
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2

Use a calculator to find

(b) $\frac{\cos 40^\circ}{7}$.

Answer(b) [1]

MARK SCHEME:

0.109 or 0.1094[3...]	1
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3

Use your calculator to work out $\sqrt{1 - (\sin 33^\circ)^2}$.

..... [1]

MARK SCHEME:

0.839 or 0.8386 to 0.8387	1
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4

Use your calculator to work out

(b) $2 - \tan 30^\circ \times \tan 60^\circ$.

Answer(b)

[1]

MARK SCHEME:

1

| 1 |

5

Use your calculator to find the value of $\frac{(\cos 30^\circ)^2 - (\sin 30^\circ)^2}{2(\sin 120^\circ)(\cos 120^\circ)}$.

Answer [2]

MARK SCHEME:

-0.577 or $\frac{-\sqrt{3}}{3}$ or $\frac{-1}{\sqrt{3}}$	2	B1 numerator 0.5 or B1 denominator $-0.866\dots$ or $\frac{-\sqrt{3}}{2}$
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6

Use a calculator to work out the following.

(b) $\sqrt{3} \times \tan 30^\circ + \sqrt{2} \times \sin 45^\circ$

Answer(b) [1]

MARK SCHEME:

2

| 1 |

- 7 Use your calculator to find the value of 1.35^7 .
Give your answer correct to 5 significant figures.

Answer [2]

MARK SCHEME:

8.1722 cao	2	B1 for 8.17 or 8.172 or 8.1721 or 8.17215...
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8 Use your calculator to find the value of

$$\frac{6 \sin 50^\circ}{\sin 25^\circ}$$

Answer [1]

MARK SCHEME:

10.9	1	
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