

SMART EXAM RESOURCES
0580 EXTENDED MATH
TOPIC: NUMBERS
SUB-TOPIC: ROUNDING TO DECIMAL PLACES
SET-1-QP-MS

1 Write the number 1045.2781 correct to

(a) 2 decimal places,

Answer(a) [1]

(b) 2 significant figures.

Answer(b) [1]

MARK SCHEME:

(a) 1045.28 cao	1	
(b) <u>1000</u>	1	Allow 1.0×10^3

2

Write the number 2045.4893 correct to

(a) 2 decimal places,

Answer(a) [1]

(b) 2 significant figures.

Answer(b) [1]

MARK SCHEME:

(a) 2045.49 cao	1	
(b) <u>2000</u>	1	Allow 2.0×10^3

3

(a) Calculate $\sqrt{5.7} - 1.03^2$.

Write down all the numbers displayed on your calculator.

Answer(a) [1]

(b) Write your answer to **part (a)** correct to 3 decimal places.

Answer(b) [1]

MARK SCHEME:

(a)	1.32656...	1	
(b)	1.327	1ft	

4

(a)

$$y = \sqrt{8 + \frac{4}{x}}$$

Find y when $x = 2$.

Give your answer correct to 4 decimal places.

Answer(a) $y = \dots\dots\dots$ [2]

MARK SCHEME:

(a) | [\pm] 3.1623 cao | 2 | M1 for $\sqrt{10}$ seen

5

Use your calculator to work out $\sqrt{\frac{3}{4}} + 2^{-1}$.

Give your answer correct to 2 decimal places.

Answer [2]

MARK SCHEME:

1.37	2	B1 for 0.866... or $\frac{\sqrt{3}}{2}$ or 0.5 or $\frac{1}{2}$ or B1 for 1.366... as final answer
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6

(a) Calculate $\sqrt{2.38 + 6.4^2}$, writing down your full calculator display.

..... [1]

(b) Write your answer to **part (a)** correct to 4 decimal places.

..... [1]

MARK SCHEME:

(a)	6.58331...	1	
(b)	6.5833	1	FT <i>their (a)</i> correctly rounded to 4 dp

7

Write 1.8972 correct to 2 decimal places.

..... [1]

MARK SCHEME:

1.90 cao	1
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8

Calculate $(3 + 3\sqrt{3})^3$ giving your answer correct to 1 decimal place.

Answer

[2]

MARK SCHEME:

550.6	2	M1 for 550, 551, 550.59, 550.5 seen SC1 87.7 only
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9

Write the number 2381.597 correct to

(a) 3 significant figures,

Answer(a) [1]

(b) 2 decimal places,

Answer(b) [1]

(c) the nearest hundred.

Answer(c) [1]

MARK SCHEME:

(a)	238 <u>0</u>	1	
(b)	2381.6 <u>0</u>	1	
(c)	2400	1	

10

Use a calculator to find the value of $\sqrt{(5.4(5.4 - 4.8)(5.4 - 3.4)(5.4 - 2.6))}$.

(a) Write down all the figures in your calculator display.

Answer(a) [1]

(b) Give your answer correct to 1 decimal place.

Answer(b) [1]

MARK SCHEME:

(a) 4.25957(744...) or 4.25958	1	Must have at least 6 figures correct Correct answer or ft from (a)
(b) 4.3	1✓	

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Calculate $\sqrt[3]{2.35^2 - 1.09^2}$.
Give your answer correct to 4 decimal places.

Answer [2]

MARK SCHEME:

1.6305 cao	2	B1 4.33(44...) seen or answer 1.63, 1.630, 1.6304....
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