



# EXAM PAPERS PRACTICE

GCSE Edexcel Math  
1MA1  
Using a Calculator

Answers

*"We will help you to  
achieve A Star "*



**Answer 1**

(a) Use your calculator to work out  $\frac{38.5 \times 14.2}{18.4 - 5.9}$

Write down all the figures on your calculator display.  
You must give your answer as a decimal.

43.736

**Answer 2**

Use a calculator to work out

$$\frac{\sqrt{20.4}}{6.2 \times 0.48}$$

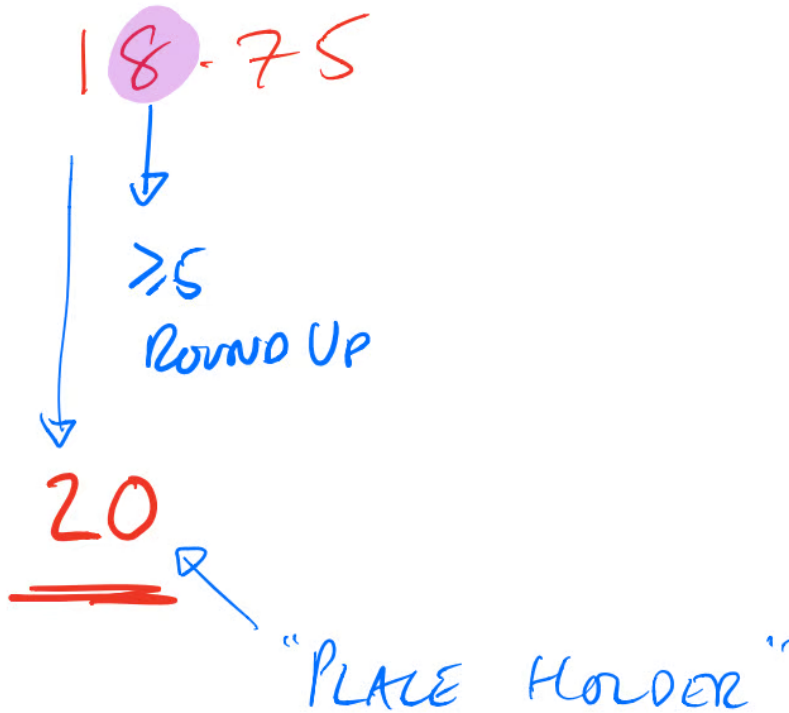
Write down all the figures on your calculator display.  
Give your answer as a decimal.

$$\frac{\sqrt{20.4}}{6.2 \times 0.48} = 1.5176868 \dots$$



**Answer 3**

(b) Write your answer to part (a) correct to 1 significant figure.





**Answer 4**

- (b) Work out the value of  $350^3$   
Give your answer in standard form.

$$42875000$$

$$= \underline{\underline{4.2875 \times 10^7}}$$



**Answer 5**

(b) Write your answer to part (a) correct to 1 significant figure.

43.736



2<sup>ND</sup> FIGURE < 5

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**Answer 6**

Calculate the value of  $\sqrt{\frac{\tan 60^\circ + 1}{\tan 60^\circ - 1}}$

Write down all the figures on your calculator display.  
You must give your answer as a decimal.

CHECK YOUR CALCULATOR!

DOES IT HAVE "D" OR "DEG" IN  
LITTLE LETTERS AT THE TOP?

IF NOT - CHANGE IT USING THE  
MODE BUTTON!

THIS IS CRUCIAL WHEN  
WORKING WITH SIN,  
COS OR TAN

1.931851653



**Answer 7**

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

4.580069567

↑  
≥ 5  
↓  
ROUND UP

4.5801



**Answer 8**

Use your calculator to work out  $\sqrt{\frac{\sin 25^\circ + \sin 40^\circ}{\cos 25^\circ - \cos 40^\circ}}$

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

2.75603957

**Answer 9**

Use your calculator to work out  $\frac{\sqrt{70.25}}{4.2 - 2.37}$

- (a) Write down all the figures on your calculator display.  
You must give your answer as a decimal.

4.580069567





**Answer 10**

Use your calculator to work out  $\frac{1.45^2}{3.89 - \sqrt{5.75}}$

Write down all the figures on your calculator display.  
You must give your answer as a decimal.

1.409102748



**Answer 11**

$$p^2 = \frac{x-y}{xy}$$

$$x = 8.5 \times 10^9$$

$$y = 4 \times 10^8$$

Find the value of  $p$ .

Give your answer in standard form correct to 2 significant figures.

$$\begin{aligned} p &= \sqrt{\frac{x-y}{xy}} \\ &= \sqrt{\left(\frac{8.5 \times 10^9 - 4 \times 10^8}{8.5 \times 10^9 \times 4 \times 10^8}\right)} \\ &= 0.0000488... \\ &= \underline{0.000049} \quad (\text{to 2 s.f.}) \\ &= \underline{\underline{4.9 \times 10^{-5}}} \end{aligned}$$



Answer 12

$w$  is increased by 10%  
 $d$  is increased by 5%

Lottie says,

“The value of  $T$  will increase because both  $w$  and  $d$  are increased.”

(b) Lottie is wrong.  
Explain why.

PERCENTAGE INCREASES (THE BEST WAY!)  
TO INCREASE BY, SAY, 3%. 10%. 5%.  
THINK: WE WANT 103%. 110%. 105%.  
MULTIPLY BY  $\frac{103}{100}$  (=1.03) 1.1 1.05

$$\text{New } T = \sqrt{\frac{5.6 \times 10^{-5} \times 1.1}{(1.4 \times 10^{-4} \times 1.05)^3}}$$

$$= 4.4 \times 10^3 \quad (4400 \dots)$$

$$\underline{\text{New } T < T}$$

So SHE'S WRONG



**Answer 13**

(b) Work out  $\sqrt[3]{\frac{4.3 \times \tan 39^\circ}{23.4 - 6.06}}$

Give your answer correct to 3 significant figures.

0.5855934233

↓

↓

≥ 5

Round UP

0.586



**Answer 14**

$$T = \sqrt{\frac{w}{d^3}}$$

$$w = 5.6 \times 10^{-5}$$

$$d = 1.4 \times 10^{-4}$$

(a) Work out the value of  $T$ .

Give your answer in standard form correct to 3 significant figures.

$$\begin{aligned} T &= \sqrt{\frac{5.6 \times 10^{-5}}{(1.4 \times 10^{-4})^3}} \\ &= 4517.5395... \\ &= 4.5175... \times 10^3 \\ &\quad \downarrow \geq 5 \\ &\quad \downarrow \text{Round up} \\ &= \underline{4.52 \times 10^3} \end{aligned}$$

STANDARD FORM

- ONE NON-ZERO NUMBER BEFORE THE DECIMAL POINT
- $\times 10^?$ 
  - ? IS POSITIVE FOR NUMBERS  $> 1$
  - ? IS NEGATIVE FOR NUMBERS  $< 1$
  - ? IS THE NUMBER OF TIMES YOU HAVE TO "MOVE" THE DECIMAL POINT



**Answer 15**

(a) Find the reciprocal of 2.5

2.5  
↓  
"ONE OVER"

$$\frac{1}{2.5} = \frac{2}{\underline{\underline{5}}}$$
$$= \underline{\underline{0.4}}$$