



Using a Calculator Exam Practice

Q1. Find $1.6^2 + 14.7^3$, writing down all the figures on your calculator display.

3179.083

Answer: 3179.083
(1 mark)

Q2. Evaluate to 2 decimal places: $0.06^4 + \sqrt{43}$

6.5610.....

Answer: 6.56
(2 marks)



Q3. Find the value of $10\cos(40)$ correct to 1 decimal place.

$$7.6604 \dots$$

$$7.7$$

Answer: 7.7
(2 marks)

Q4. Find the value of $\frac{\sin(50)+\cos(50)}{\sqrt{0.092}}$ correct to 2 decimal places

$$4.644 \dots$$

$$= 4.64$$

Answer: 4.64
(2 marks)



Q5. What is the value $20\cos(35)\sin(38)$ to 1 decimal place?

$$10.0864 \dots$$

$$10.1$$

Answer: 10.1
(2 marks)

Q6. Evaluate $12^{\sqrt{5.6}}$. Give your answer correct to 3 significant figures.

$$357.9389 \dots$$

$$358$$

Answer: 358
(2 marks)



Q7. Find the value of $\frac{13.25}{\sqrt{93.247}} + \frac{24}{\tan(2.1)}$ correct to 2 decimal places

$$655.8878\dots$$

$$655.90$$

Answer: 655.90
(2 marks)

Q8. a) Write down all the figures on your calculator display

$$\sin(40) - \frac{\sqrt{3.26 + 189.429}}{8.17}$$

$$-1.05626335$$

Answer: -1.05626335
(1 mark)

b) Write your answer to part (a) correct to 1 decimal place.

Answer: -1.1
(1 mark)



Q9. a) Write down all the figures on your calculator display

$$3\sqrt{45.2} - \frac{8.41^3}{\sqrt{3.26 + 189.429}} + \cos(89.2)$$

$$-22.66761261$$

Answer: -22.66761261
(1 mark)

b) Write your answer to part (a) correct to 2 decimal places.

Answer: -22.67
(1 mark)

Applied Mixed Practice Problems

Q10. Ron says that $\cos(42)\cos(50) - \sin(42)\sin(50) - \sin(92) = 0$.
How far out, to 1 decimal place, is he in his calculation?

$$-1.034290324 \text{ actual value}$$
$$\Rightarrow 1.0 \text{ out to 1 d.p.}$$

Answer: 1.0 out
(2 marks)



Q11. Let $A = 4.6^2 - 7.1^2$ and $B = \sqrt{30.1}$

Work out $B^2 - 2A$, giving your answer to 2 decimal places.

$$88.6$$

$$\Rightarrow 88.60$$

Answer: 88.60
(2 marks)

Q12. Let $A = \frac{4}{5 + \cos(40)}$ and $B = 5.2^3$

Work out $3A + 2B$, giving your answer to 2 decimal places.

$$283.2971494$$

$$= 283.30$$

Answer: 283.30
(2 marks)



Q13. Order the following expressions from smallest to largest, justifying your choice.

$$4.6^2 + 7.1\sin(75), \quad \sqrt{790.13}, \quad \sin(\sin(80))$$

$$28.0180\dots \quad 28.1092\dots \quad 0.017187\dots$$

(2)

(3)

(1)

$$\sin(\sin(80)), \quad 4.6^2 + 7.1\sin(75), \quad \sqrt{790.13}$$

Answer: _____

(2 marks)

Q14. Order the following expressions from largest to smallest, justifying your choice.

$$\sin(6.6^2) \div (7.1\sin(75) \times \frac{34}{897}), \quad \tan(80.2), \quad \frac{\sqrt{3}}{0.000789}$$

$$2.65095\dots$$

$$5.78438\dots$$

$$2195.248\dots$$

(3)

(2)

(1)

$$\frac{\sqrt{3}}{0.000789}, \quad \tan(80.2), \quad \sin(6.6^2) \div (7.1\sin(75) \times \frac{34}{897})$$

Answer: _____

(2 marks)



Q15. Michael wishes to evaluate the expression, $\frac{5+\sin(30)}{\sqrt{400}-20}$, using his calculator. State the problem he will run into and why it occurs.

- The calculator reports an 'error'.
- $\sqrt{400} - 20 = 0$ and division by zero leads to this error.

Answer: _____
(2 marks)