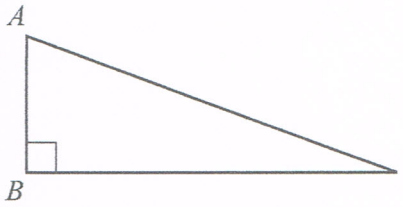
For Examiner's Use

1 In the right-angled triangle ABC, $\cos C = \frac{4}{5}$. Find angle A.



NOT TO SCALE

$\cos \angle C = \frac{4}{5}$

$\angle C = \cos^{-1}\left(\frac{4}{5}\right)$

$\angle C = 36.869897645...$

$\angle C \approx 36.9°$

$\angle A = 180° - \angle B - \angle C$

$= 180° - 90° - 36.9°$

$= 53.1°$

Answer Angle A = 53.1° [2]

---

2 Which of the following numbers are irrational?

$\frac{2}{3}$ $\sqrt{36}$ $\sqrt{3} + \sqrt{6}$ π 0.75 48% $8^{\frac{1}{3}}$

Answer $\sqrt{3}+\sqrt{6}$, π [2]

---

3 Show that $1\frac{5}{9} \div 1\frac{7}{9} = \frac{7}{8}$.

Write down all the steps in your working.

Answer

$1\frac{5}{9} \div 1\frac{7}{9} = \frac{14}{9} \div \frac{16}{9}$

$= \frac{14}{9} \times \frac{9}{16}$

$= \frac{\cancel{14}^{7}}{\cancel{9}_{1}} \times \frac{\cancel{9}_{1}}{\cancel{16}_{8}}$

$= \frac{7}{8}$

[2]
