

Answer Guide — Mapping the Hollow (A2): Worked Solutions

Teacher answer guide for the summative assessment "Mapping the Hollow: Measurement, Shape & Data" (A2). Full worked solutions and explanations for all 10 questions across fractions/decimals, measurement/time, shape/angles and data/chance, each illustrated with an animated SVG that shows the concept and the solution together. Maps answers to the marking criteria. For teacher use.



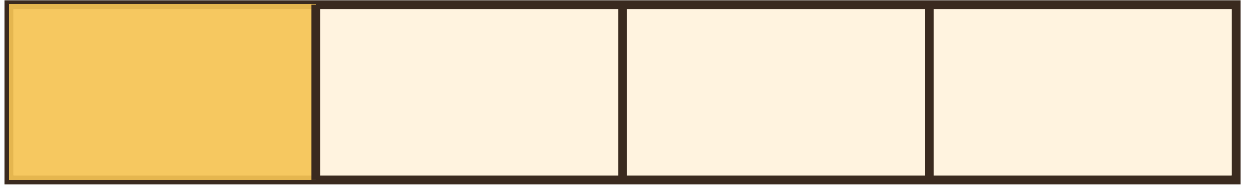
Teacher answer guide for **Mapping the Hollow** (A2). Each question shows the expected answer, the working, the reasoning to look for, and an animation that builds the solution. On-screen the diagrams animate; in print they show the finished state.

For the teacher. This guide is for marking and for showing students how each answer is reached. Marks map to the four criteria: Fractions & decimals (25%, Part A), Measurement & time (30%, Part B), Shape & angles (20%, Part C), Data & chance (25%, Part D). Accept equivalent correct methods; reward clear reasoning even where an answer is slightly off.

Part A — Fair shares (fractions & decimals)

1. Colour three-quarters; write the fraction.

Answer: $\frac{3}{4}$ (three of the four equal parts shaded).



3 of 4 quarters shaded = $\frac{3}{4}$

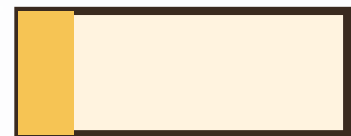
Look for: exactly three of four *equal* parts shaded, and the fraction written as $\frac{3}{4}$.
Common slip: shading 3 of unequal parts.

2. A fraction equal to $\frac{1}{2}$; and $\frac{3}{10}$ as a decimal.

Answer: any equivalent such as $\frac{2}{4}$, $\frac{3}{6}$ or $\frac{5}{10}$; and $\frac{3}{10} = 0.3$.



$\frac{1}{2}$



$\frac{3}{10} = 0.3$

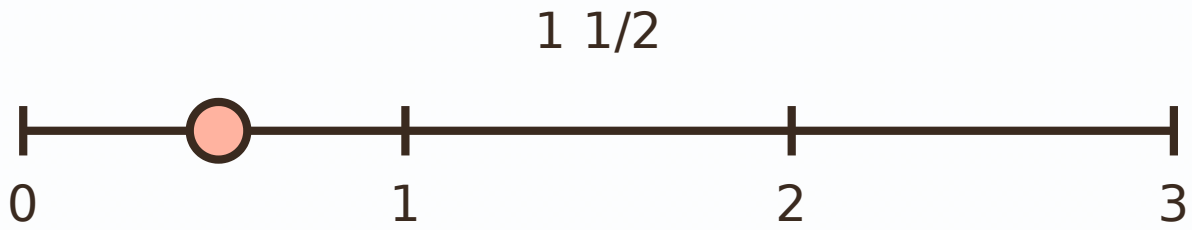


same shaded length = $\frac{2}{4}$

Why: halves and quarters cover the same length when the wholes are equal. A tenth is one of ten equal parts, written 0.1, so three tenths is 0.3.

3. Mark $1\frac{1}{2}$ on a number line from 0 to 3.

Answer: the point sits exactly halfway between 1 and 2.

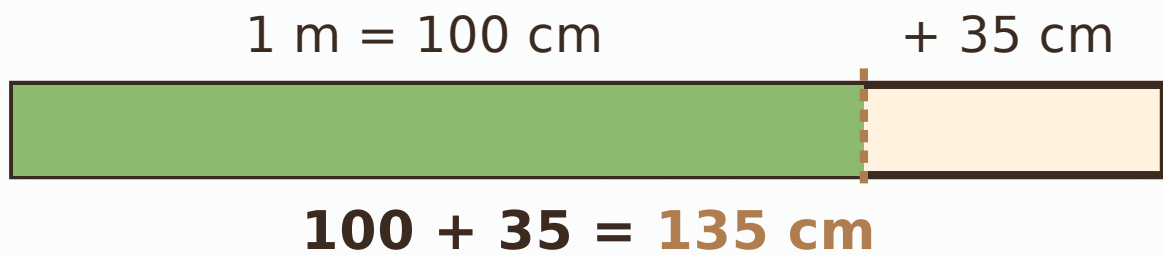


Look for: the mark midway between the 1 and 2 ticks — not on the 1, and not at $1\frac{1}{2}$ counted as "halfway along the whole line".

Part B — Measuring the bush (measurement & time)

4. 1 m 35 cm in centimetres.

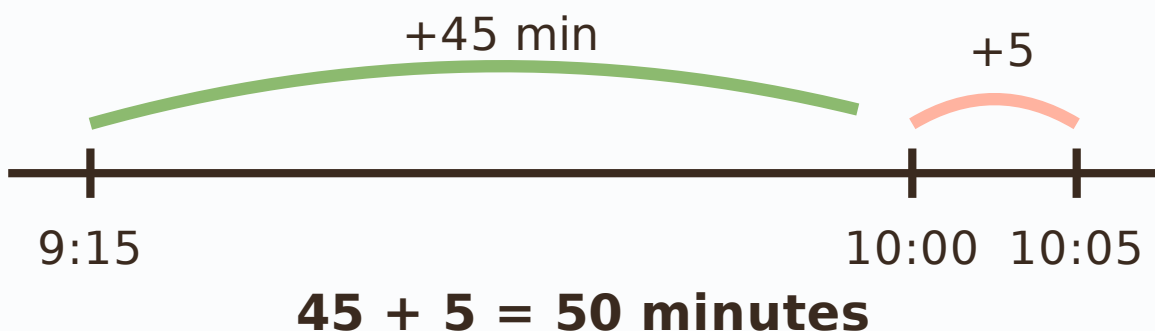
Answer: 135 cm (100 + 35).



Why: 100 cm make 1 m, so 1 m 35 cm is 100 + 35. Watch for "1.35 cm" or "135 m" — unit confusion.

5. Duration from 9:15 am to 10:05 am.

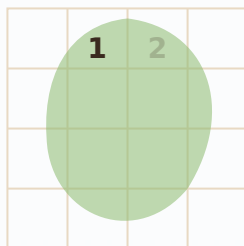
Answer: 50 minutes (45 min to 10:00, then 5 more).



Why: counting on to the next hour first avoids the "10:05 – 9:15 = 90" error from treating time like base-10.

6. Estimate the leaf's area in square units.

Answer: about 9 *square units* (accept 8–10). Count squares that are at least half covered as one.



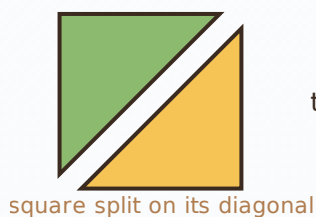
about 9 squares

Look for: a sensible counting rule applied consistently (e.g. "half or more counts as one"). The exact number matters less than the method.

Part C — Looking closely (shape & angles)

7. A square split along its diagonal.

Answer: two triangles (two right-angled triangles, equal in size).

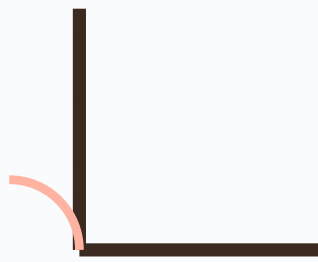


two triangles

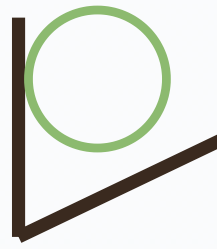
Accept: "triangles" or "two right-angled triangles". Both are correct at this level.

8. Tick the angle smaller than a right angle; sketch one bigger.

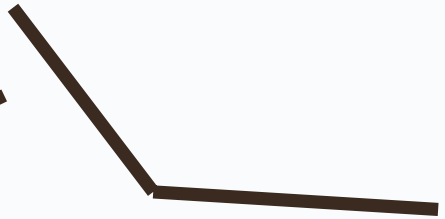
Answer: the **acute** (middle) angle is smaller than a right angle; a correct "bigger" sketch is any **obtuse** angle (opening wider than a square corner).



right



smaller ✓



bigger

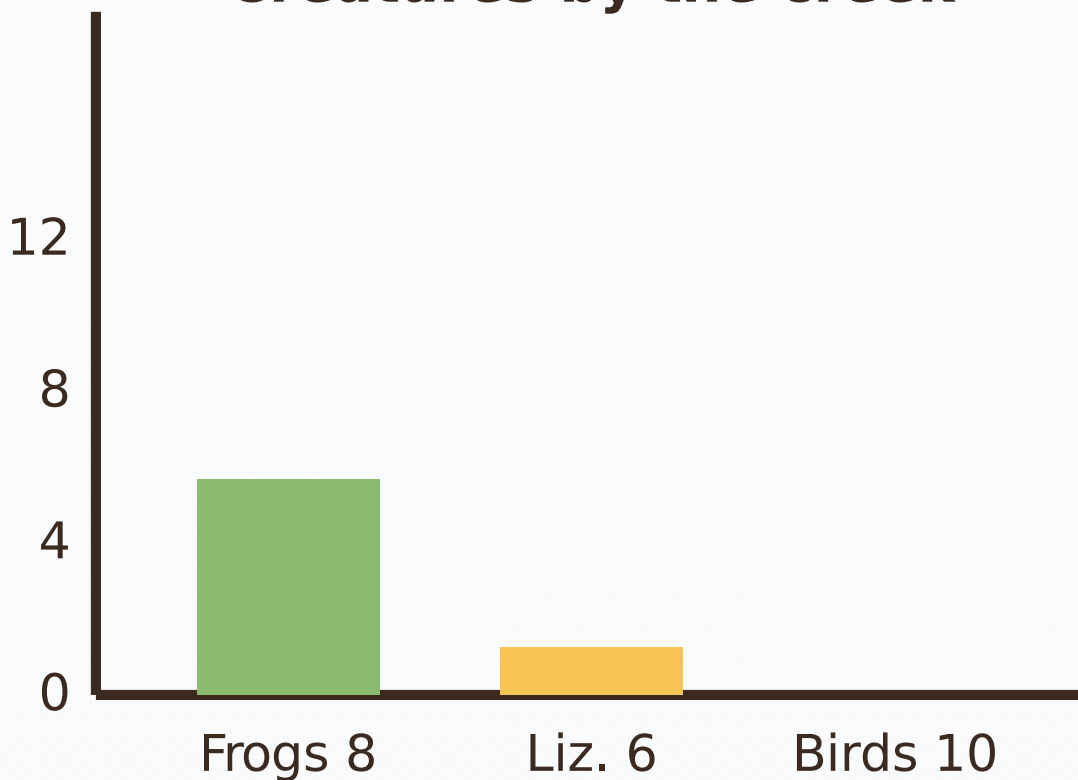
Look for: judging by the *opening*, not arm length. A folded-paper right-angle tester confirms it: the acute angle doesn't reach the corner; an obtuse one opens past it.

Part D — Counting the Hollow (data & chance)

9. Column graph: frogs 8, lizards 6, birds 10 (each square = 2).

Answer: columns of height 4, 3 and 5 squares respectively; labelled axes and a title.

Creatures by the creek

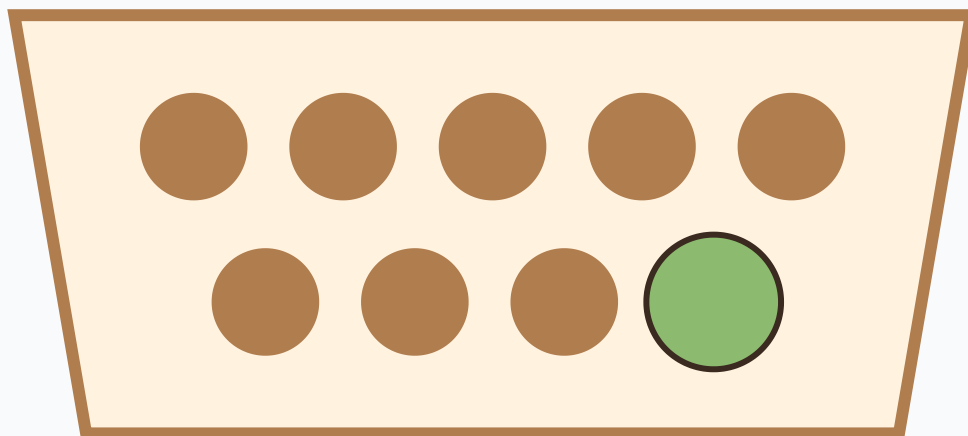


Look for: consistent scale (each square = 2), correct heights, a title and axis labels. Birds tallest, lizards shortest.

10. 9 brown, 1 green — is green likely or unlikely? Explain.

Answer: unlikely. There is only 1 green out of 10, so there are far more brown than green — you are much more likely to pull a brown one.

9 brown, 1 green
green is **UNLIKELY**



Look for: the word "unlikely" *plus* a reason referring to there being only 1 green among many (9 brown). The explanation carries the mark, not just the label.

"Careful looking and clear explaining — that's real Hollow wisdom. Mark kindly, and use these animations to walk students back through anything they found tricky." — Ollie