

Push Tasks Answers



1. The true gap is $97 - 82 = 15$ points (about 18%). But on this axis (baseline 80) B's bar is 8.5 times taller than A's, so "miles ahead" overstates a real but modest 15-point lead.

2. It ignores that area, not linear size, is what the eye reads as "amount." If both dimensions scale with the value, area grows with the value squared, so the picture exaggerates the true ratio.

3. Value ratio $= 100 \div 25 = 4$, so the icon's linear size is also 4 times bigger, making its area $4^2 = 16$ times bigger.

4. It fixes transparency – it discloses that the axis is truncated. It does not fix the chart itself: the bar heights and the exaggerated visual comparison are unchanged.

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5. Use a zero-baseline (or much wider) axis. The bar would then rise only slightly, correctly showing the true $\approx 2\%$ change instead of a dramatic-looking jump.

6. Using a zero-baseline for costs but a truncated axis for profits is deliberately inconsistent – it makes unwanted numbers look modest and wanted numbers look dramatic.

7. Value ratio (Small to Large)
 $= 40 \div 10 = 4$, so the linear size ratio is also 4, giving an area ratio of $4^2 = 16$.

8. Example: revenue rises 10% (\$200k to \$220k) plotted on a \$190k–\$230k axis (no break), plus a paired icon doubling in both dimensions ($4 \times$ area). Together, the true 10% rise could look **quadrupled**.