

ANSWER KEY

Answer Key

Q	Ans	Unit	Quick Note
Q01	A	Linear Equations	$x = 4$ — verify by plugging back in
Q02	A	Word → Equation	Brother = 8 — $2b + 3 = 19$
Q03	B	Inequalities	$x \leq -3$ — divide by neg: FLIP sign!
Q04	A	Slope-Intercept	$y = 3x + 2$ — slope = $6/2 = 3$
Q05	A	Systems of Equations	7 adults, 5 children — system of 2 eqs
Q06	A	Factoring	$(x-4)(x+3)$ — multiply to -12, add to -1
Q07	A	Exponent Rules	x^2 — $(2x^3)^2 = 4x^6$; then simplify
Q08	B	Functions	$f(-1) = 6$ — careful: $(-1)^2 = +1$
Q09	B	Percent Change	2.25% lower — percent changes NOT reversible
Q10	A	Quadratic Formula	$t = 2.5$ sec — quadratic formula, take positive root
Q11	A	Pythagorean Theorem	12 ft — 5-12-13 Pythagorean triple
Q12	A	Angle Relationships	$x = 24$ — co-interior angles sum to 180°
Q13	A	Triangle Congruence	SAS — included angle between the two sides
Q14	A	Similar Triangles	33 ft — proportion: $6/4 = h/22$
Q15	A	Area & Perimeter	65.12 sq units — rectangle + semicircle ($r=4$)
Q16	A	Circle Theorems	55° — inscribed angle = $1/2$ arc
Q17	A	Volume	197.82 cm^3 — cone + sphere volumes
Q18	A	Coordinate Geometry	(5, -7) — work backward from midpoint formula
Q19	A	Transformations	(-2, -3) — 180° rotation: negate both coords
Q20	A	Special Right Triangles	$7\sqrt{3}$ cm — hyp = $2x$, longer leg = $x\sqrt{3}$