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1. Section 1.1, 1.2, 1.3 - Functions and their graphs
 - (a) x -intercepts, y -intercepts: location, definition (p. 146, *Intercepts*).
 - (b) (*) Functions: relations, definition of a function, determining if a relation is a function.
 - (c) Domain, range: definition, expressing it in mathematical terms, interpretation.
 - (d) Graphing: ordered pairs, Cartesian co-ordinates, vertical line test.
 - (e) Reading graphs: determining domain, range, if the graph is of a function.
 - (f) Reading graphs II: properties such as increasing, decreasing, constant, even, odd.
 - (g) Reading graphs III: determining intercepts, maxima, minima.
 - (h) (*) Piecewise function: reading them, graphing them, creating them.
 - (i) Difference quotients: definition, resolving them.
 2. Section 1.4, 1.5 - Linear functions
 - (a) Forms of a line: point-slope, slope-intercept, general.
 - (b) Special cases: horizontal and vertical lines.
 - (c) Slope: definition, interpretation, parallel, perpendicular slopes.
 - (d) (*) Finding the equation of lines from various set-ups (two points, point and a slope, point and another line and a qualitative relationship (parallel/perpendicular)).
 - (e) Meaning of slope: average rate of change, units in terms of units of x and units of y .
 3. (*) Section 1.6 - Transformations of functions
 - (a) Expressing a new function that is a transformation of a previous function from reading the graph.
 - (b) Graphing a new function that is a transformation of a previous function from reading an equation.
 4. Section 1.7 - Algebra of functions, composition
 - (a) Domain: determining the domain of a new function built from more basic functions.
 - (b) Operations between functions: $f + g$, $f - g$, $f \cdot g$, $\frac{f}{g}$.
 - (c) (*) Composition: expressing the composition $f \circ g$, determining domain.
 - (d) Decomposition: rewriting a function as the composition of two simpler functions.
 5. Section 1.8 - Inverse functions
 - (a) Definition, finding the inverse, the one-to-one (*injective*) property.
 - (b) (*) Graphs: graphing the inverse relative to the original function.
 - (c) Restricting the domain of a function to produce an inverse function.
 6. Section 1.9 - Distance, midpoint, circles
 - (a) Distance: derivation, using it correctly.
 - (b) Midpoint: definition/derivation.
 - (c) Circles: definition/derivation, finding the equation of a circle given radius and center.
 - (d) Circles II: going from standard form to general form and vice versa via *completing the square*, graphing circles.
 7. Section 1.10 - Modeling
 - (a) The core idea of this section is to think in an organized way. Determine unknowns, construct functions to represent unknowns, and think about what the functions represent to deduce answers.
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