Appendix C

Answers and Hints for Selected Exercises

Section 1.1

1. Sentences (a), (c),(e), (f), (j) and (k) are statements. Sentence (h) is a statement if we are assuming that n is a prime number means that n is an integer.

2.

	Hypothesis	Conclusion
a.	n is a prime number.	n^2 has three positive divisors.
b.	a is an irrational number and b is an irrational number.	$a \cdot b$ is an irrational number.
c.	p is a prime number.	$p = 2$ or p is an odd number.
d.	p is a prime number and $p \neq 2$.	p is an odd number.
e.	$p \neq 2$ and p is an even number	p is not prime.

3. Statements (a), (c), and (d) are true.

4. (a) True when $a \neq 3$. (b) True when $a = 3$.

6. (a) This function has a maximum value when $x = \dfrac{5}{16}$.

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