Warm Up 9

1. absolute value
2. Quadrant IV
3. 3.5

Lesson Practice 9

a. 12

b. 4.24

c. 7

d. 1732.8 m

Practice 9

1. 4.47
2. 5.83; yes
3. $(3x + 1)(3x - 7)$
4. 14.04
5. 120°
6. acute
7. No. The student has confused a decagon with a dodecagon, which has 12 sides instead of 10. The correct formula is $P = 12n$.
8. 0
9. never
10. Each number is found by adding the two numbers directly above it; 1, 4, 6, 4, 1
11. No; by the parallel postulate, two lines which are each parallel to a third line are parallel to each other.
12. A postulate is a statement that is accepted as true without proof; a theorem is a statement that is accepted as true only when proven.
13. $x = \frac{1}{2}$, 3
14. Two distinct, noncoplanar, nonparallel planes intersect in a line.
15. $c = \sqrt{a^2 + b^2}$; It is similar to the distance formula because when you calculate the difference in the x-variable, you are calculating one of the legs of a right triangle. When you calculate the difference in the y-variable, you are calculating the other leg.

16. 8.60 m

17. $\frac{14}{210}$ or $\frac{1}{15}$

18. 38°

19. D

20. $2x^2 - 2$

21. Transitive Property of Congruence

22. No; Sample: If two lines intersect, then there is a plane containing both lines.

23. Sample: $\frac{10}{2} = 5$. You can buy 5 cartons if they each cost \$2. But they cost slightly more than \$2, so you can only buy 4.

24. C

25. 22

26. all non-negative real numbers

27. $d = |y_2 - y_1|$

28. $w > -2$

29. right angles; yes

30. A conjecture becomes a theorem only after being proved true.