Saunders High school

Summer Packet 2019

Graded as ( )homework

Algebra II/Trigonometry

Math 361

Mrs. Nunes

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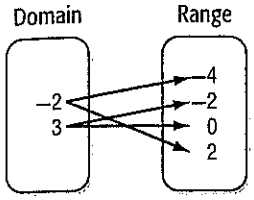
Due Friday September7 2019

CHAPTER 0 Pretest

State the domain and range of each relation. Then determine whether each relation is a function. Write *yes* or *no*.

1. {(14, 1), (−3, 6), (8, 4)}

2. 

Name the quadrant in which each point is located.

3. (−6, −2)
4. (10, 11)
5. (4, −3)
6. (−5, −7)

Find each product.

7. $(x + 1)(x + 4)$
8. $(a - 3)(a + 6)$
9. $(m - 2)(m - 5)$
10. $(d + 7)(d + 7)$
11. $(t - 9)(t + 4)$
12. $(c + 8)(c - 8)$

13. **NUMBER THEORY** There are two integers. One is 5 more than a number, and the other is 1 less than the same number.
    a. Write expressions for the two numbers.
    b. Write a polynomial expression for the product of the numbers.

Factor each polynomial.

14. $6a^2 + 2a$
15. $10ab^2 + 5b$
16. $15d - 12cd^2$
17. $x^2 + 5x + 6$
18. $y^2 + 6y - 7$
19. $a^2 - 13a + 36$

State whether the events are *independent* or *dependent*.

20. selecting three playing cards from a standard deck without replacing any of the cards
21. rolling two dice
22. choosing a type of car and selecting a brand of tire
23. selecting two baseballs from a carton of five without replacement

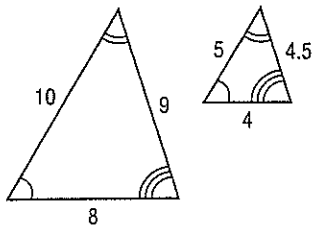
24. **BOOKS** A bookshelf holds 4 different biographies and 5 different mystery novels. How many ways can one book of each type be selected?

25. **ICE CREAM** An ice cream shop offers a choice of two types of cones and 15 flavors of ice cream. How many different 1-scoop ice cream cones can a customer order?

Determine whether each situation involves a *permutation* or a *combination*. Then find the number of possibilities.

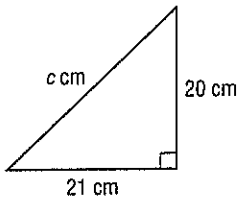
26. placing an algebra book, a geometry book, a chemistry book, an English book, and a health book on a shelf
27. selecting 3 of 15 flavors of juice at the grocery store

28. Determine whether the triangles are *similar*, *congruent*, or *neither*.



29. **PHOTOGRAPHS** A photo that is 3 inches wide by 5 inches long is being enlarged so that it is 12 inches long. How wide will the enlarged photo be?

Find each missing measure. Round to the nearest tenth, if necessary.

30. 

31. $a = 6$ yd, $b = 9$ yd, $c = ?$

The lengths of three sides of a triangle are given. Determine whether each triangle is a right triangle.

32. 12 yd, 14 yd, 16 yd
33. 15 km, 20 km, 25 km
34. 45 mm, 60 mm, 75 mm