

Trig Chapter 4 Practice Test 2

Name _____

In 1-3, find the slope, distance, and midpoint between the two given points.

1. (1, 4) and (-1, 8)

Slope = _____ Distance = _____ Midpoint = _____

2. (1, -5) and (5, -1)

Slope = _____ Distance = _____ Midpoint = _____

3. (2, n) and (4, n + 6)

Slope = _____ Distance = _____ Midpoint = _____

_____ 4. Find the equation of the line, in slope intercept form, that goes through the point (8, 4) and has a slope of -1.

_____ 5. Find the equation of the line, in slope intercept form, that goes through the point (-8, 2) and has a slope of $\frac{1}{2}$.

_____ 6. Find the equation of the line, in slope intercept form, that goes through the point (1, 7) and (3, 27)

_____ 7. Find the equation of the line, in slope intercept form, that goes through the point (2, -1) and (3, -9).

_____ 8. Give the equation of the line in standard form that is parallel to $y = 3x + 22$ and passes through the point (4, 5).

_____ 9. Give the equation of the line in standard form that is parallel to $12x + 2y = 8$ and passes through the point (-1, 2).

_____ 10. Give the equation of the line in standard form that is perpendicular to $y = -4x - 5$ and passes through the point (-8, 2).

_____ 11. Give the equation of the line in standard form that is perpendicular to $2x - 10y = 10$ and passes through the point (3, 3).

Calculate the following.

_____ 12. $\sum_{n=0}^2 n^3$

_____ 13. $\sum_{n=1}^4 (-2n)^2$

_____ 14. $\sum_{n=0}^6 1^n$

_____ 15. $\frac{24!}{22!4!}$

_____ 16. $\frac{6!}{3!5!}$

_____ 17. $\frac{213!}{214!}$

- _____ 18. On my 10 question multiple choice quiz with options A, B, C, and D, how many different ways can the quiz be answered?
- _____ 19. In the game of 21, you are dealt 2 cards. How many different hands can I be dealt if there are 52 cards in a deck?
- _____ 20. My wife makes excellent calzones. She has 5 different toppings with which she can stuff my calzone. How many different calzone options do I have assuming that I might choose all 5 toppings, 4 toppings, 3 toppings, 2 toppings, 1 topping, or no topping at all?
- _____ 21. Assume that I have 10 fish in my fish tank. I am very hungry and since I have nothing in the house to eat, I am going to eat 2 of the fish for supper. How many different combinations of fish could I have for supper that evening? Assume that all 10 fish are of different breeds.
- _____ 22. I have been told that my password must be 2 digits followed by 3 letters and then followed by 2 more digits. How many different possible passwords could I have?
- _____ 23. Out of 8 girls and 6 boys, I must pick 2 girls and 3 boys to serve on the Principal's Council. How many different combinations exist?
- _____ 24. When trying to solve a word puzzle in the paper, I got frustrated because I couldn't figure out the scrambled word. Thus, I decide to list out all of the possibilities. How many possibilities are there from this scrambled word: E N C I P L?
Can you guess what the scrambled word is? _____