Midterm practice

44 questions –
20 questions on linear – 10 on Pythagoras – 15 exponential

1. $y = 3x - 2$ $y = 3x + 7$

tell me about these two lines

2. give the equation of the line through (6,0) and has a slope -3

3. Can you find the equation of the line given...

- 2 points on the line
- Equation of a line parallel to the line
- Slope and a point on the line
- Slope and the y-intercept

4. How else can you write $y = 12/x$

5. Give the equation of the function

x	2	3	4	5	6	7	8	9	10
y	4	8	12	16	20	24	28	32	36

6. My friends and I went to breakfast. We shared a giant $7 omelet and had 2 orange juices. After a $3 off coupon the bill was $9. How much were the orange juices?

7. A rectangle with sides 5 in. and 2x in. with a perimeter is 26 in. What is x?

8. In the sequence. 6, 10, 14, 18, 22, 26, ... What is the 100th term?

9. Find the equation of the function

x	3	6	9	12
y	6	15	24	33

10. $\dfrac{x-5}{2} = 2$

11. $-5x - 15 = 20$

12. $\frac{x}{4} + 9 = 19$

13. $-6x + 4 + 2x = 28$

14. $19x - 5 = 25 + 9x$

15. $3(x + 2) = 27$

16. $82 = -3(x + 2) + x$

17. A square pen for my dog is 144 square meters. What is the perimeter of the pen?

18. What is the side length of a square with the area of 36? 100? And 90?

19.   a = 12. c =15

20.   a = 3. b = 10

21.   A cube has the side length of 2.3. What is the volume?

22.   What is the relationship between radius and diameter?