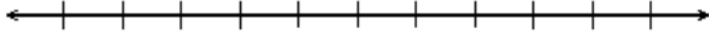


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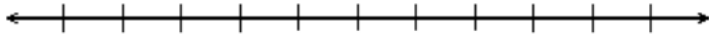
Advanced Math-7 Module 3B Test Practice and Review

Solve and graph each inequality.

1. $\frac{g}{8} \geq 4$



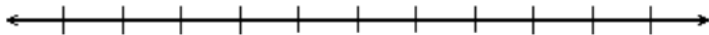
2. $-9m > -36$



3. $1 < 3x$



4. $-5 < \frac{h}{4}$



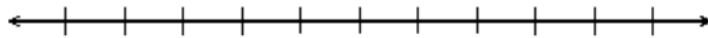
5. $-56 \leq 7n$



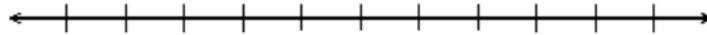
6. $-18 > 8 + g$



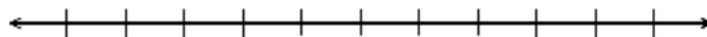
7. $3n + 7 \leq 25$



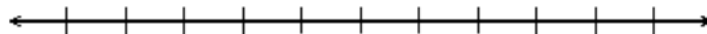
8. $-11 + 9q < -56$



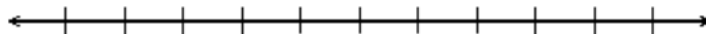
9. $4(z - 5) < -28$



10. $29 \geq 2(m + 4)$

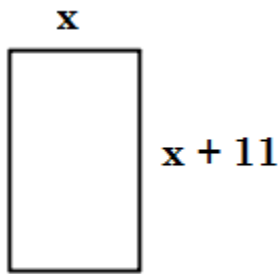


11. $19 - 5x > 4$



12. The circumference of a unicycle's wheel is 24π inches. What is the distance across the wheel through the center? What is the radius of the wheel?

13. Which expressions represent the perimeter of the rectangle? Choose all that apply.



- a) $(2x + 11)^2$
- b) $x + x + 11 + 11$
- c) $x + x + 11 + x + x + 11$
- d) $4x + 22$
- e) $2x + 2(x + 11)$
- f) $2n + 22$

14. Hailey's mom is a car sales person. She makes \$1,500 each month, plus \$600 for each car that she sells. Write and solve an inequality to find the smallest number of cars her mom must sell to earn at least \$10,800 next month.

15. Mr. Walsh wants to bring his employees on a Swamp Adventure. He must pay a \$350 flat fee for the group, plus \$75 per person. He can spend no more than \$1,800.

a) Write and solve an inequality that represents the total cost of Mr. Walsh's adventure for x people given his budget.

b) How many people can Mr. Walsh pay for (including himself)?

16. Find the constant of proportionality for each table.

a)

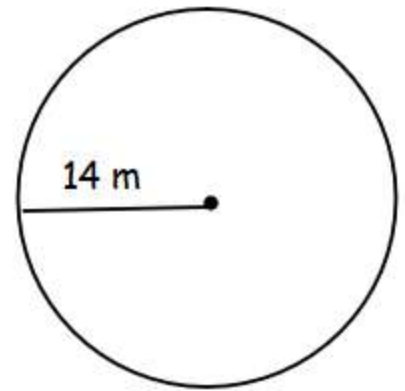
x	y
4	32
11	88
6	48
3	24

b)

x	y
36	6
42	7
600	100
12	2

17. Jenny made a circle on the basketball court by tying a rope to a brick on one side and chalk on the other side. The rope was 14 meters long.

a) What is the circumference of the circle she made, to the nearest meter? Use 3.14 for π .



b) What is the area of the circle she made, to the nearest square meter? Use 3.14 for π .

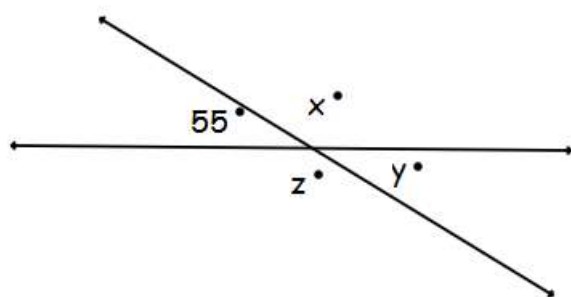
18. $\angle MON$ and $\angle PQR$ are complementary.

If $m\angle PQR = 24^\circ$, then $m\angle MON = \underline{\hspace{2cm}}$.

19. $\angle CDE$ and $\angle STY$ are supplementary.

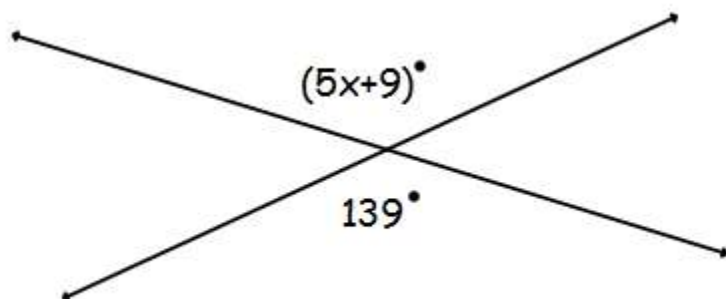
If $m\angle CDE = 124^\circ$, then $m\angle STY = \underline{\hspace{2cm}}$.

20. Find the value of X, Y, and Z.

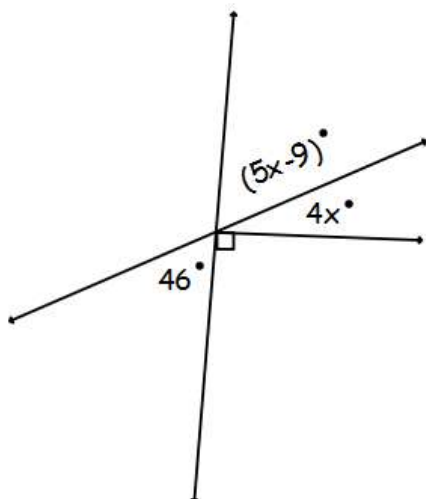


#21 – 23: Write and solve an algebraic equation to find the value of x .

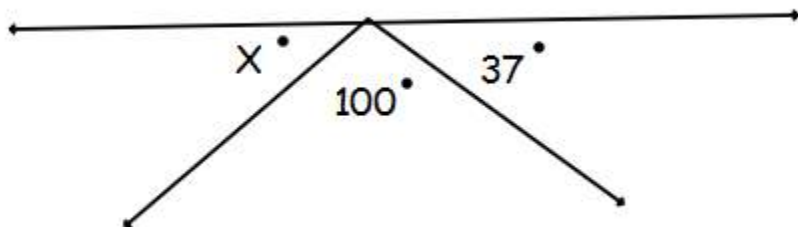
21.



22.



23.



24. Stephany solved both of these inequalities. Determine if she solved each one correctly. If she made any error(s), explain what she did wrong.

a)

$$-\frac{1}{3}h + 11 \leq -4$$

$$\begin{array}{r} -11 \quad -11 \\ \hline \end{array}$$

$$-\frac{1}{3}h \leq -15$$

$$-\frac{3}{1} \times -\frac{1}{3}h \leq -15 \times -\frac{3}{1}$$

$$h \geq 45$$

b)

$$5n - (-16) > -84$$

$$\begin{array}{r} +16 \quad +16 \\ \hline \end{array}$$

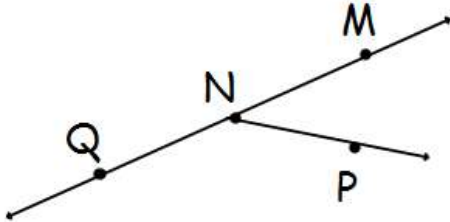
$$5n > -58$$

$$\frac{5n}{5} > \frac{-58}{5}$$

$$n < -11\frac{3}{5}$$

26. The measure of $\angle PNQ$ is eight times as large as the measure of $\angle MNP$.

A) Write and solve an equation to find the measure of each angle.



B) If $m\angle QNP = 4(3z + 10)^\circ$, use the measure you found in part A to write and solve an equation to find the value of z .

27. Jessepi, the furniture maker, is making two circular tables. The Pine table has a diameter of 8 feet. The Oak table has a radius of 6 feet.

a) Jessepi wants to put gold edging around each table top. How many feet of gold edging will Jessepi need to outline each table top? (Write your answer in terms of π .)

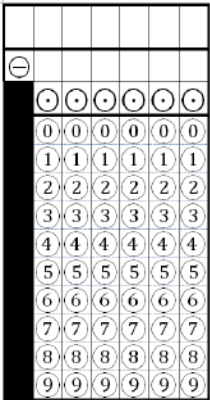
Pine table: _____ Oak table: _____

b) How many total feet of gold edging does Jessepi need to outline both table tops? (Let $\pi = 3.14$.)

c) To keep the Oak table scratch free, Mrs. Walton wants to cover it with flowery cloth. How many square feet of cloth will she need to cover the Oak table?
(Write answer in terms of π .)

28. Use 3.14 for pi.

a) Find the circumference of a circle if the radius = 12 inches.



b) Find the area of a circle if The diameter = 14 feet.

