

Future Geometry CP Students,

The Geometry summer practice is designed to review algebra and geometry skills that are prerequisite curricula essential to your success in College Preparatory Geometry class. During the **first class** you will be given the opportunity to ask questions about the topics listed in prerequisite material. During the **second class**, you will take a summer practice assessment. The assessment will count as a **quiz**.

Your task is to complete the problems with work shown. If there is a problem you do not remember or seems like new material, you must be resourceful and utilize online resources, a study group, or a knowledgeable adult. Remember that you will be taking an assessment the first week of school. Practice makes confident so practice extra problems of a concept you may be struggling with.

The daily supplies you will need for class are: paper, pen or pencil, protractor, and a folder or binder. The school will provide you with a TI 84+ calculator during class time and after school. It is recommended that each student has a scientific calculator at home but it is not required. Students may use their phone at home but phones may not be used in class or on standardized assessments like the SATs and PSATs. If you are interested in investing in a calculator, the TI 84+ Color Edition is the most recommended for future mathematics courses. Again, this is not required.

The intention of the summer practice is not for you to spend your entire summer doing math. Enjoy the month of July and the beginning of August. Start this packet the last two weeks leading up to school, which will allow you to start school better prepared. If this work is too overwhelming or too difficult, you may want to discuss your course selection with your guidance counselor. The Geometry Summer Packet can be found on the NKSD/NKHS website.

North Kingstown Math Department

The following are Algebra 1 & Geometry topics that are covered in the Geometry Summer Packet:

Rounding

Evaluating Expressions using Order of Operations

Simplifying Fractions

Solving Proportions

Factoring Expressions

Solving One Step & Multi Step Equations

Solving Systems of Equations by Graphing, Substitution, & Elimination

Distributive Property

Radius, Diameter, Circumference, & Area of Circles

Area of Polygons

Online resources:

Extra Practice – <https://www.khanacademy.org/>

Graphing Calculator – <https://www.desmos.com/calculator>

Summer Packet 2020

Round each to the place indicated.

1) 5.99; tenths

2) 4.10831; hundredths

3) 7.306856; thousandths

4) 1.944283; ten-thousandths

5) 30,745; tens

6) 77.1; ones

Evaluate each expression.

7) $(6 + 1) \cdot 6$

8) $(15 \cdot 2) \div 5$

9) $5 + 2 - (4 - 4) - 6$

10) $15 \div (6 + 3 - 1^3 - 3)$

11) $\frac{3}{2} \div \frac{1}{2} + \frac{1}{2}$

12) $2\left(\frac{2}{3} - \frac{2}{3} \cdot \frac{3}{4}\right)$

Simplify each. Write your answer as a mixed number when possible.

13) $\frac{12}{20}$

14) $8\frac{4}{28}$

15) $\frac{24}{18}$

Simplify each. Leave your answer as an improper fraction.

16) $\frac{27}{18}$

Solve each proportion.

$$17) \frac{4}{6} = \frac{9}{n}$$

$$18) \frac{2}{7} = \frac{k + 10}{10}$$

$$19) \frac{n}{2} = \frac{n - 4}{8}$$

$$20) \frac{5}{9} = \frac{v - 6}{v - 10}$$

Factor the common factor out of each expression.

$$21) -27a^3 + 15a^2$$

$$22) 24p + 20p^2$$

Factor each completely.

$$23) 4r^2 + 12r + 8$$

$$24) x^2 - 11x + 24$$

Solve each equation.

$$25) -17 = \frac{k}{8}$$

$$26) 176 = 11m$$

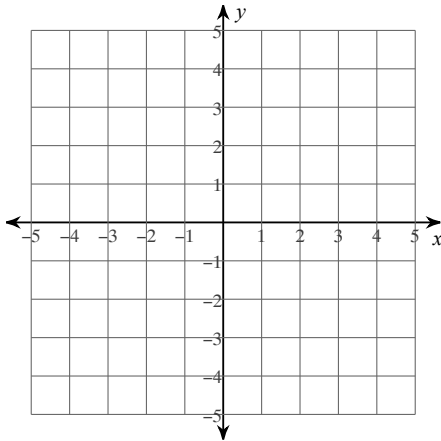
$$27) 2(-4 + 7m) = -120$$

$$28) 4(5m + 2) + 3 = 171$$

Solve each system of equations by graphing, substitution, OR elimination.

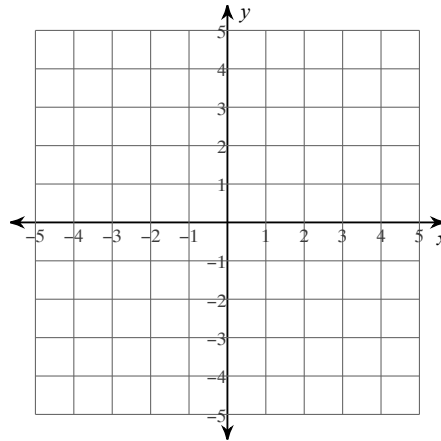
$$29) y = -\frac{2}{3}x - 3$$

$$y = \frac{4}{3}x + 3$$



$$30) y = \frac{7}{2}x - 3$$

$$y = \frac{1}{2}x + 3$$



$$31) \begin{aligned} 2x + 6y &= -6 \\ -10x - 6y &= 6 \end{aligned}$$

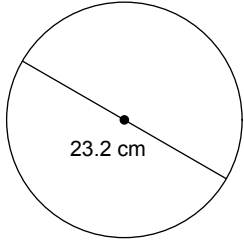
$$32) \begin{aligned} 10x + 6y &= 0 \\ 10x + 9y &= 15 \end{aligned}$$

$$33) \begin{aligned} -12x - 8y &= -8 \\ -6x - 7y &= -7 \end{aligned}$$

$$34) \begin{aligned} 9x - 3y &= -3 \\ 7x - 5y &= 3 \end{aligned}$$

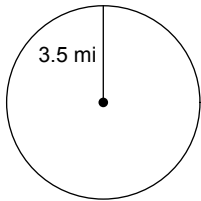
Find the radius of each circle. Round your answer to the nearest tenth.

35)



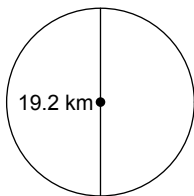
Find the circumference of each circle. Use your calculator's value of π . Round your answer to the nearest tenth.

36)



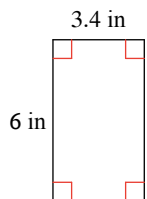
Find the area of each. Use your calculator's value of π . Round your answer to the nearest tenth.

37)

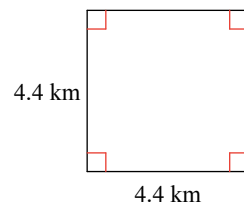


Find the area of each.

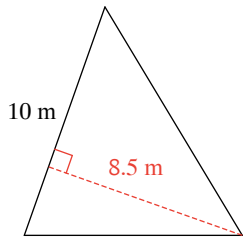
38)



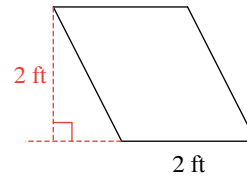
39)



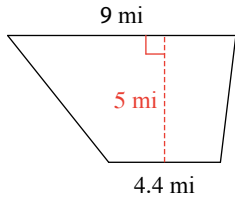
40)



41)

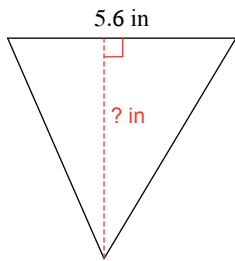


42)



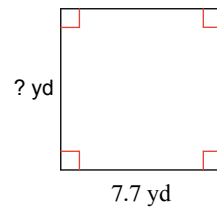
Find the missing measurement. Round your answer to the nearest tenth.

43)



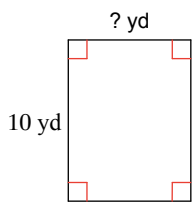
Area = 15.1 in²

44)



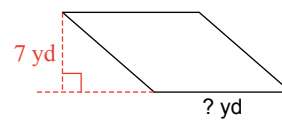
Area = 59.3 yd²

45)



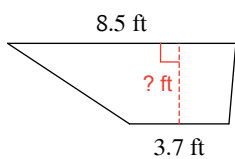
Area = 76 yd²

46)



Area = 84 yd²

47)



Area = 18.3 ft²

Answers to Summer Packet 2020

1) 6.0

5) 30,750

9) 1

13) $\frac{3}{5}$

2) 4.11

6) 77

10) 3

14) $8\frac{1}{7}$

3) 7.307

7) 42

11) $\frac{7}{2}$

15) $1\frac{1}{3}$

4) 1.9443

8) 6

12) $\frac{1}{3}$

16) $\frac{3}{2}$

17) $\{13.5\}$

21) $3a^2(-9a + 5)$

25) $\{-136\}$

29) $(-3, -1)$

33) $(0, 1)$

18) $\{-7.14\}$

22) $4p(6 + 5p)$

26) $\{16\}$

30) $(2, 4)$

34) $(-1, -2)$

19) $\{-1.33\}$

23) $4(r + 1)(r + 2)$

27) $\{-8\}$

31) $(0, -1)$

20) $\{1\}$

24) $(x - 3)(x - 8)$

28) $\{8\}$

32) $(-3, 5)$

35) 11.6 cm

39) 19.36 km²

43) 5.4 in

47) 3 ft

36) 22 mi

40) 42.5 m²

44) 7.7 yd

37) 289.5 km²

41) 4 ft²

45) 7.6 yd

38) 20.4 in²

42) 33.5 mi²

46) 12 yd