

Geometry - Practice Exam 1 - Fall 2019

Solve each equation.

1) $3(1 - 7n) = -6(1 + 5n)$

2) $-\frac{3}{2}m - \frac{1}{2}\left(-\frac{5}{3}m + 1\right) = \frac{29}{8}\left(\frac{43}{10}m + 1\right) + \frac{11}{12}m$

Simplify.

3) $5\sqrt{392}$

4) $15\sqrt{24}$

5) $-\sqrt{24} - \sqrt{45} + 3\sqrt{6}$

6) $3\sqrt{5} - 4\sqrt{5} + 4\sqrt{5} + 2\sqrt{12}$

7) $\sqrt{5}(3 + \sqrt{5})$

8) $5\sqrt{6}(3\sqrt{3} - 7\sqrt{7})$

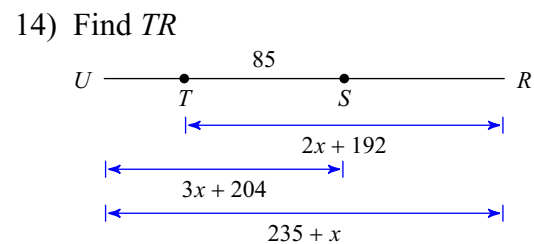
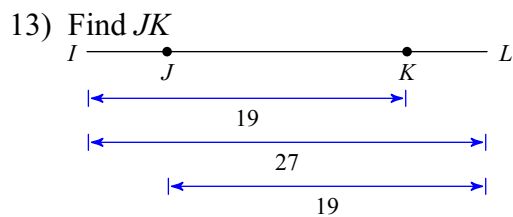
9) $\frac{3\sqrt{2}}{\sqrt{3}}$

10) $\frac{3 - \sqrt{3}}{5\sqrt{18}}$

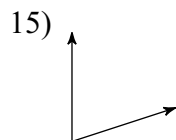
Use a ruler to measure the length of each line segment. Measure each segment in millimeters. Round your measurements to the nearest millimeter. Also state the maximum error and maximum percent of error in each measurement.



Find the length indicated.



Classify each angle as acute, obtuse, right, or straight.

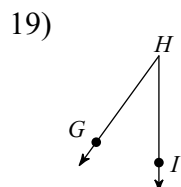


16) 180°

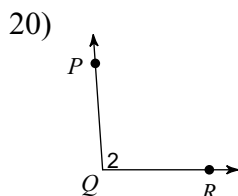
Draw and label an angle to fit each description.

17) an obtuse angle, $\angle JKL$
Name the vertex and sides of each angle.

18) a straight angle, $\angle KJI$



Name each angle in four ways.



Answers to Geometry - Practice Exam 1 - Fall 2019

1) $\{-1\}$

2) $\left\{-\frac{990}{4121}\right\}$

3) $70\sqrt{2}$

4) $30\sqrt{6}$

5) $\sqrt{6} - 3\sqrt{5}$

6) $3\sqrt{5} + 4\sqrt{3}$

7) $3\sqrt{5} + 5$

8) $45\sqrt{2} - 35\sqrt{42}$

9) $\sqrt{6}$

10) $\frac{3\sqrt{2} - \sqrt{6}}{30}$

11) 28 mm, 0.5 mm, 1.8%

12) 45 mm, 0.5 mm, 1.1%

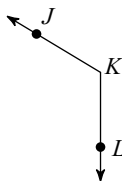
13) 11

15) acute

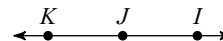
16) straight

14) 154

17)



18)



19) H, \overrightarrow{HI} and \overrightarrow{HG}

20) $\angle Q, \angle 2, \angle PQR, \angle RQP$