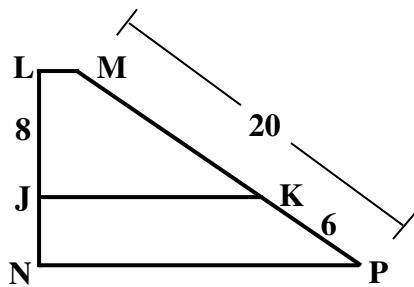


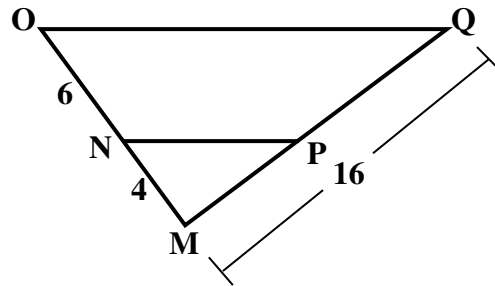
Geometry
Assignment 6.3

Name: _____

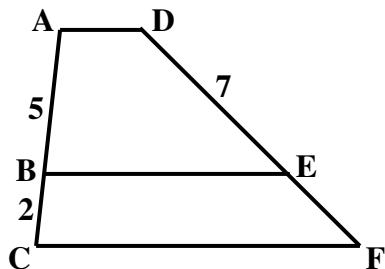
1. Given $\frac{LJ}{JN} = \frac{MK}{KP}$, find JN.



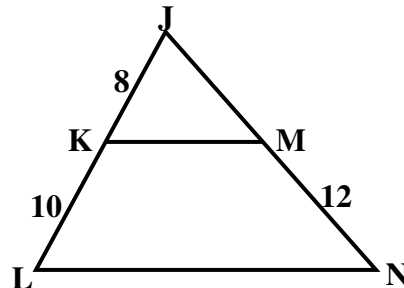
2. Given $\frac{MN}{NO} = \frac{MP}{PQ}$, find PQ.



3. Given $\frac{AB}{AC} = \frac{DE}{DF}$, find EF.



4. Given $\frac{JK}{KL} = \frac{JM}{MN}$, find JN.



5. In 2007, the exchange rate of Chinese yuans to American dollars was 8 to 1. When traveling to Hong Kong, Peter paid 384 yuans for a tour of the Great Wall of China. Note: It is the only man-made structure visible from space. Set up a proportion to determine how much Peter paid for the tour in American dollars.

6. Becky is making a scaled poster sized drawing based off of a 4"x 6" picture of Winnie the Pooh. If Becky wants the width of the poster to be 2 feet, then what should the length be in feet?
Note: The symbol (") stands for inches and the symbol (') stands for feet.



6 in.

4 in.

7. The perimeter of a rectangle is 120 feet. The ratio of the width to the length is 3:7. Find the length and the width.
8. The area of a rectangle is 135 cm^2 . The ratio of the width to the length is 3:5. Find the length and the width.
9. The measures of the angles in a triangle area in the extended ratio of 3:6:9. Find the measures of the angles.
10. Two gears, Gear A and Gear B, have a gear ratio of 1:3. If Gear A has 24 teeth, then how many teeth does Gear B have?
11. Determine if a triangle can be constructed with the given side lengths.
3 in., 2 in., 5 in.
12. A triangle has one side of 5 centimeters and another of 13 centimeters. Describe the possible lengths of the third side.

Answer Key:

- | | | | | | | |
|---|-----------------------------------|-------------------|--------------------|------------------|---------|--|
| 1) $3\frac{3}{7}$ | 2) $9\frac{3}{5}$ | 3) $2\frac{4}{5}$ | 4) $21\frac{3}{5}$ | 5) \$48 | 6) 3 ft | 7) $w = 18 \text{ ft}, \ell = 42 \text{ ft}$ |
| 8) $w = 9 \text{ ft}, \ell = 15 \text{ ft}$ | 9) $30^\circ, 60^\circ, 90^\circ$ | 10) 72 teeth | 11) No | 12) $8 < x < 18$ | | |