Student: _____ **Instructor:** Megan Rourke **Assignment:** Ch. 4, Sections 1,2
Date: _____ **Course:** MATH 1500 - Online

1. Solve the proportion equation.

$$\frac{x}{30} = \frac{7}{15}$$

x = ☐
(Type a whole number or a decimal.)

2. Solve the proportion equation.

$$\frac{3}{P} = \frac{18}{7}$$

P = ☐
(Type a whole number or a fraction.)

3. Solve the proportion equation.

$$\frac{A}{2.2} = \frac{17}{10}$$

A = ☐ (Type an integer or a decimal.)

4. Solve the proportion equation.

$$\frac{7 \text{ ft } 6 \text{ in.}}{2 \text{ ft } 3 \text{ in.}} = \frac{L}{4 \text{ ft } 6 \text{ in.}}$$

L = ☐ ft
(Type a whole number or a decimal.)

5. If 22 tapered pins can be machined from a steel rod 11 ft long, how many tapered pins can be made from a steel rod 4 ft long?

☐ tapered pins can be made from a steel rod 4 ft long.
(Type a whole number or a decimal.)

6. If you earn $566.80 for a 26-hour work week, how much would you earn for a 40-hour work week at the same hourly rate?

You would earn $ [ ] for a 40-hour work week.
(Type a whole number or a decimal.)

7. To prepare a pesticide spray, 2.5 lb of BIOsid is added to 24 gal of water. How much BIOsid should be added to a spray tank holding 305 gal?

[ ] lb of BIOsid should be added to a spray tank holding 305 gal.
(Round to the nearest tenth as needed.)

8. The ideal air to fuel ratio for an engine is 14.7:1. If a vehicle burns 7 lb of fuel, how many pounds of air should it draw to achieve the ideal ratio?

The vehicle should draw [ ] lb of air to achieve the ideal ratio.
(Round to the nearest whole number as needed.)

9. A crowbar 27 in. long is pivoted 6 in. from the end. What force must be applied at the long end in order to lift a 500 lb object at the short end?

A force of [ ] lb must be applied at the long end in order to lift a 500 lb object at the short end.
(Round to the nearest tenth as needed.)

10. A 30-tooth gear on a motor shaft drives a larger gear having 54 teeth. If the motor shaft rotates at 900 rpm, what is the speed of the larger gear?

The speed of the larger gear is [ ] rpm.
(Type a whole number or a decimal.)

11. If 18 assemblers can complete a certain job in 4 hours, how long will the same job take if the number of assemblers is cut back to 12?

It will take 12 assemblers [ ] hours to complete the job.
(Type a whole number or a decimal.)

12. If 20 assemblers can complete a certain job in 4 hours, how long will the same job take if the number of assemblers is cut back to 8?

It will take 8 assemblers [ ] hours to complete the job.
(Type a whole number or a decimal.)

1. 14

2. $\frac{7}{6}$

3. 3.74

4. 15

5. 8

6. 872

7. 31.8

8. 103

9. 142.9

10. 500

11. 6

12. 10