

Worksheet 15

- On a map, 0.75 inches represents 100 miles. If two cities are 1.5 inches apart on the map, what is the actual distance between the cities?
 - 500 miles
 - 300 miles
 - 200 miles
 - 150 miles
- Maria was able to assemble 36 printed circuit boards in the 2.25 hours before her first break. At the same rate, how many circuit boards will she assemble in 7.5 hours of work?
 - 120
 - 150
 - 240
 - 608
- The weight of an object on the moon is proportional to its weight on Earth. An astronaut who weighs 180 lb on earth weighs 30 lb on the moon. How much will a battery that weighs 24 lb on Earth weigh on the moon?
 - 1.75 lb
 - 4 lb
 - 6 lb
 - 7.5 lb
- Weed killer is spread at the rate of 3 lb for 1200 ft². How many pounds of weed killer are needed for 2000 ft²?
 - 2 lb
 - 5 lb
 - 8 lb
 - 50 lb
- Ron counts his steps as he walks from his front door to the street. He takes 24 steps in 64 feet. How many steps will he take to walk 1.2 miles?
 - 2376
 - 1980
 - 1650
 - 1280
- If 5 ounces of medicine must be mixed with 12 ounces of water, how many ounces of medicine must be mixed with 96 ounces of water?
 - 8 ounces
 - 16.8 ounces
 - 19.2 ounces
 - 40 ounces
- If 5 large bolts weigh the same as 85 small ones, then how many small bolts are equal in weight to 8 large bolts?
 - 17
 - 53
 - 120
 - 136
- A 3-ft piece of the cable was cut off of a reel and weighed. It weighed 0.25 lb. The reel and remaining cable weighed 88 lb. An empty reel averages about 8 lb in weight. About how many feet of cable remained on the reel?
 - 20 ft
 - 60 ft
 - 960 ft
 - 1056 ft

9. The instructions with a certain epoxy casting compound call for mixing between 9 and 10 parts of curing agent with 100 parts of epoxy and then curing at 100°C for 2 hours. Which one of the following would be an appropriate amount of curing agent to mix with 10 pounds of epoxy?

A. 14.0 ounces
 B. 15.5 ounces
 C. 17.7 ounces
 D. 18.0 ounces

10. A charity 10-kilometer race is given annually to benefit a local hospice organization. How long will it take to run a 10-kilometer race for a runner whose average pace is 125 meters per minute?

A. 12.5 minutes
 B. 1 hour and 20 minutes
 C. 5 hours
 D. 12 hours and 30 minutes

11. Divide and simplify.

$$\frac{8x-8}{x} \div \frac{9x-9}{2x^2} =$$

A. $\frac{16x^3-16x^2}{9x^2-9x}$
 B. $\frac{72x^2+144x+72}{2x^2}$
 C. $\frac{9}{16x}$
 D. $\frac{16x}{9}$

12. Multiply and simplify.

$$\frac{28a^2}{b^{-4}} \cdot \frac{5p}{4ab^4} =$$

A. $\frac{1}{35ap}$
 B. $\frac{112a^3b^8}{5p}$
 C. $35a$
 D. $35ap$

13. In Patrick's math class, his quiz average counts for 30% of his final grade, and his test average counts for the rest. His quiz average is 80. What must his test average be in order to earn a final grade of 87?

A. 21
 B. 63
 C. 84
 D. 90

14. The width of a square is decreased by 4 feet and its length is doubled to produce a rectangle. How long was the side of the original square if the area of the rectangle is 12 ft² less than the area of the original square?

A. 2 ft
 B. 3 ft
 C. 6 ft
 D. 12 ft