

Name: _____ Date: _____



Get Into Energy Math
Student Quiz 13
Customary Metric Conversions

1. Yolanda is working with a line crew lowering an underground network protector into a vault. The network protector weights 750 pounds. How would Yolanda report the weight of the network protector in tons?
 - A. 0.333 tons
 - B. 0.375 tons
 - C. 0.750 tons
 - D. 2.667 tons

2. Jim's crew is checking the oil level in several oil breakers in a substation. The crew determined they need 10 pints of oil to top off all the breakers. How many gallons of oil should the crew get from the warehouse to top off all the breakers?
 - A. 2 1/2 gal
 - B. 1 1/3 gal
 - C. 2 gal
 - D. 1 1/4 gal

3. Jack is adding oil to a generator being used for temporary power on a new construction site. Jack added 1.5 liters to the generator. How many milliliters of oil did Jack add?
 - A. 150 mL
 - B. 1,000 mL
 - C. 1,500 mL
 - D. 1.5 mL

4. Tom is working with a crew from Canada during a major storm. Tom told the crew they need 151 feet of line to repair the damage in a residential area. The crew wants Tom to convert the amount of wire from English units to metric units. How many meters of wire would Tom tell the crew they need to complete the repair?

- A. 50 m
- B. 46 m
- C. 15 m
- D. 450 m

5. Jack is purchasing a new engine for an emergency diesel generator for a small-town utility. He needs a 525 horsepower engine. One option is an engine coming from a foreign manufacturer that is rated in kilowatts. If 1 horsepower = 0.735 kilowatts, what kilowatt rating is equivalent to a 525 horsepower engine?

- A. 714 kW
- B. 526 kW
- C. 404 kW
- D. 368 kW

6. Enrique is measuring the amount of neutral wire needed for a new construction project. The reels of wire contain 305 meters each. How many feet of neutral wire are on each cable reel?

- A. 915 ft
- B. 3,660 ft
- C. 1,000 ft
- D. 366 ft

7. Ned is completing a weld on a stainless steel 0.5 psi pressure pipe for a gas service in a residential neighborhood. The 1/4-inch pipe wall thickness is 1.65 millimeters. Ned has to convert millimeters to centimeters. How many centimeters is the wall thickness of this 0.5 psi – 1.65 millimeter pipe?

- A. 1.65 cm
- B. 0.0165 cm
- C. 0.00165 cm
- D. 0.165 cm

8. Jim's crew is removing condensation from drip traps in several gas lines. The crew removed a total of 10 pints from several drip traps. How many liters of water should the gas crew report was removed from the gas lines?

- A. 47.3 L
- B. 5.16 L
- C. 0.473 L
- D. 4.73 L

9. Dan is measuring the amount of plastic piping needed for 10 homes. The distance from the main line on the street to the homes is 100 feet, so Dan needs 1,000 feet of low-pressure plastic pipe. How many meters of plastic pipe does Dan need to complete the project?

- A. 305 m
- B. 333 m
- C. 281 m
- D. 3,048 m

10. Tyler is a gas distribution mechanic helper checking the engine oil in the district's gas trucks. The oil container is marked in liters. Tyler has added 10 liters of oil to 6 trucks. How many gallons of oil has Tyler added to the 6 gas trucks?

- A. 15.8 gal
- B. 15.0 gal
- C. 20.0 gal
- D. 12.0 gal

11. How many feet are in 272.5 inches? (Round to the nearest foot.)

- A. 27 ft
- B. 32 ft
- C. 23 ft
- D. 25 ft

12. Express 3.2 yards as inches.

- A. 32 in
- B. 120 in
- C. 115 in
- D. 40 in

13. Express 0.25 acre as square feet.

- A. 43,560 ft²
- B. 12,000 ft²
- C. 10,890 ft²
- D. 0.25 ft²

14. Express 73 cubic feet as cubic yards.

- A. 2.7 yd^3
- B. 3 yd^3
- C. 14 yd^3
- D. 0.73 yd^3

15. Express 43 pints as gallons (1 decimal place).

- A. 21.5 gal
- B. 10.1 gal
- C. 4.3 gal
- D. 5.4 gal

16. Express 56.9 millimeters as meters.

- A. 56.9 m
- B. 0.0569 m
- C. 5.69 m
- D. 0.569 m

17. Express 43.5 ounces as pounds (1 decimal place).

- A. 5.4 lbs
- B. 12 lbs
- C. 2.7 lbs
- D. 2 lbs

18. Express 1.04 gallons as cubic inches.

- A. 210 in^3
- B. 240 in^3
- C. 16 in^3
- D. 238 in^3

19. Express 5 centimeters as millimeters.

- A. 500 mm
- B. 0.5 mm
- C. 50 mm
- D. 5,000 mm

20. Express 4,320 cubic centimeters as cubic decimeters.

- A. 432 dm^3
- B. $1,000 \text{ dm}^3$
- C. 4.32 dm^3
- D. 100 dm^3

21. Express 350,000 square millimeters as square meters.

- A. 0.35 m^2
- B. 35 m^2
- C. 350 m^2
- D. 0.035 m^2

22. Express 12 inches as centimeters.

- A. 24 cm
- B. 0.305 cm
- C. 0.5 cm
- D. 30.5 cm

23. Express 3.9 square yards as square meters.

- A. 33 m^2
- B. 0.33 m^2
- C. 3.3 m^2
- D. 0.36 m^2

24. Express 2.4 liters as quarts.

- A. 1 qt
- B. 2.5 qt
- C. 1.2 qt
- D. 2.3 qt

25. Express 23.8 kilograms as pounds.

- A. 0.5 lb
- B. 49 lbs
- C. 58 lbs
- D. 52.5 lbs