ASSESSMENT SUCCESS STRATEGIES

SET OUTCOME GOALS

1. Example: score high enough overall to impress the selection committee.
2. Walk out of the test session confident you scored as high as you could.

SET PREPARATION GOALS

1. Example: **Study** 30 minutes 3 times a week for 2 weeks before the test.
2. Find someone to help **motivate** you to prepare harder.
3. Locate a **quiet place to study** where you can concentrate **without interruptions.**
4. Take each **practice test** twice.
5. Need **more help** with math? Take an online class. www.ed2go.com/owens
    - Course title: Math Refresher (self-paced tutorial) - $115
    - Emphasize these Lessons: (1) Integers/Other Equations, (2) Percentages, (8) Ratios, (9) Measurement, (11) Statistics, (12) Statistical Graphs
6. Plan ahead to get a **good night's sleep** the night before the test.
7. **Set a time to leave home** for the test site so you will arrive early. Set wake up time accordingly.
8. Leave your **cell phone** in the car.

TAKING THE TEST

1. Before you get out of your car, do a **breathing exercise**. Close your eyes. Breathe in slowly for 10 seconds, then exhale slowly for 10 seconds. Repeat once or twice.
2. Remind yourself you prepared hard for this test and **you are going to do well** on it.
3. In the test room, find a seat, sit down, close your eyes, and **imagine you are taking the test.**
4. If time permits, do your **breathing exercise** again.
5. When the test is put in front of you, remind yourself **you prepared hard** and will do fine.
6. **Listen carefully** to the test instructions – don't let others distract you.
7. As the test begins, take a moment to remind yourself to **focus and be methodical.**
8. When you answer the first question, make sure your **marking** is correct.
9. **Congratulate yourself** for getting the first question answered.
10. As you answer questions, **keep a little timer going** in the back of your mind.
11. If **time runs short,** fill in as many answers as you can – even by guessing.

Measurement Practice

GOALS

1. Get reminders about different kinds of mechanical devices.
2. Build your confidence by showing you how to work through the problem.

GUIDELINES

- Do not worry about how much time you need to answer questions.
- If you get stuck, ask for help.

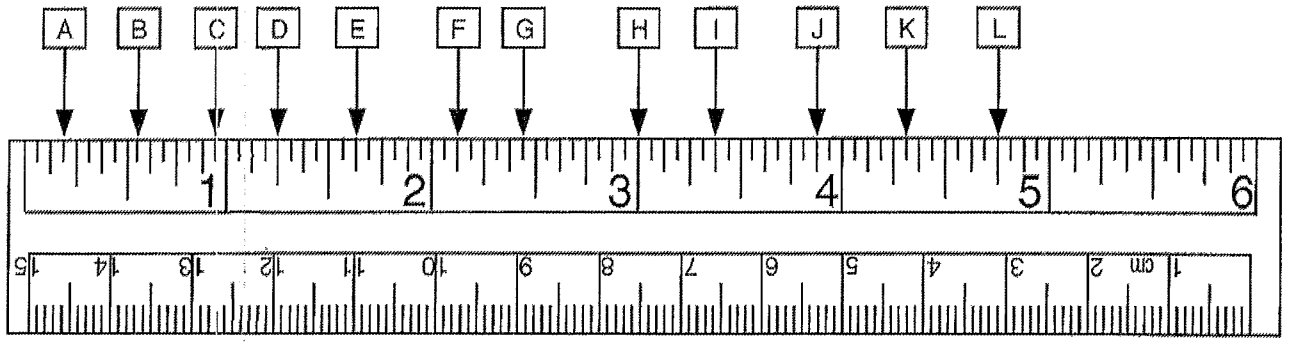
DIRECTIONS

1. Correctly name the measurements indicated by the arrows on the drawing of the ruler.
2. Write your answers in the spaces that correspond to the matching letter of the alphabet.
3. Check your answers with the answer key provided.

A = _____ D = _____ G = _____ J = _____

B = _____ E = _____ H = _____ K = _____

C = _____ F = _____ I = _____ L = _____



A. 3/16 in	D. 1 ¾ in	G. 2 7/16 in	J. 3 7/8 in
B. 9/16 in	E. 1 5/8 in	H. 3 in	K. 4 5/16 in
C. 15/16 in	F. 2 1/8 in	I. 3 3/8 in	L. 4 ¾ in

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Measurement Practice

Answers

1. A year ago a boy was 4' 6" tall. He is now 5' 8" tall. How much did he grow? 1. _____

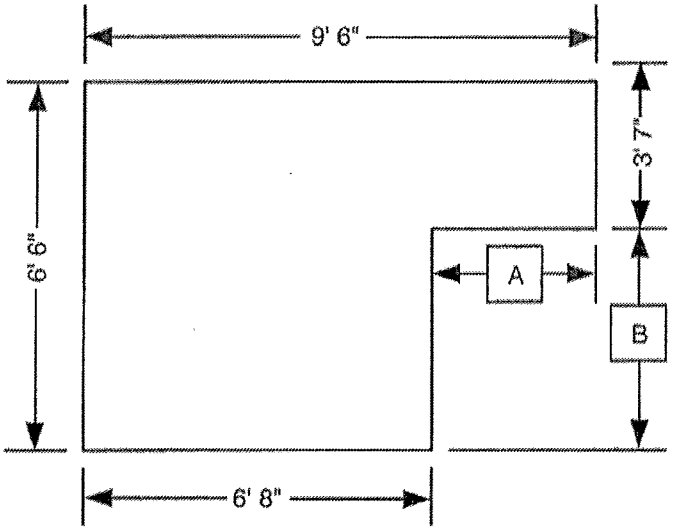
2. A 16 ft 3 in copper pipe is cut to 12 ft 8 in. How much was cut off? 2. _____

3. A 10 ft 9 in goalpost was raised to 15 ft 4 in. How much was it raised? 3. _____

4. A worker needs a 2' 5" piece of PVC pipe. The pipe is now 8'. How much must the worker cut off of the pipe? 4. _____

5. Solve for dimensions A and B in the following diagram. 5. A = _____

B = _____



6. How much longer is B than A from problem 5? 6. _____

1. 1' 2"	3. 4' 7"	5. A = 2' 10" B = 2' 11"
2. 3' 7"	4. 5' 7"	6. 1"

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Reading Practice

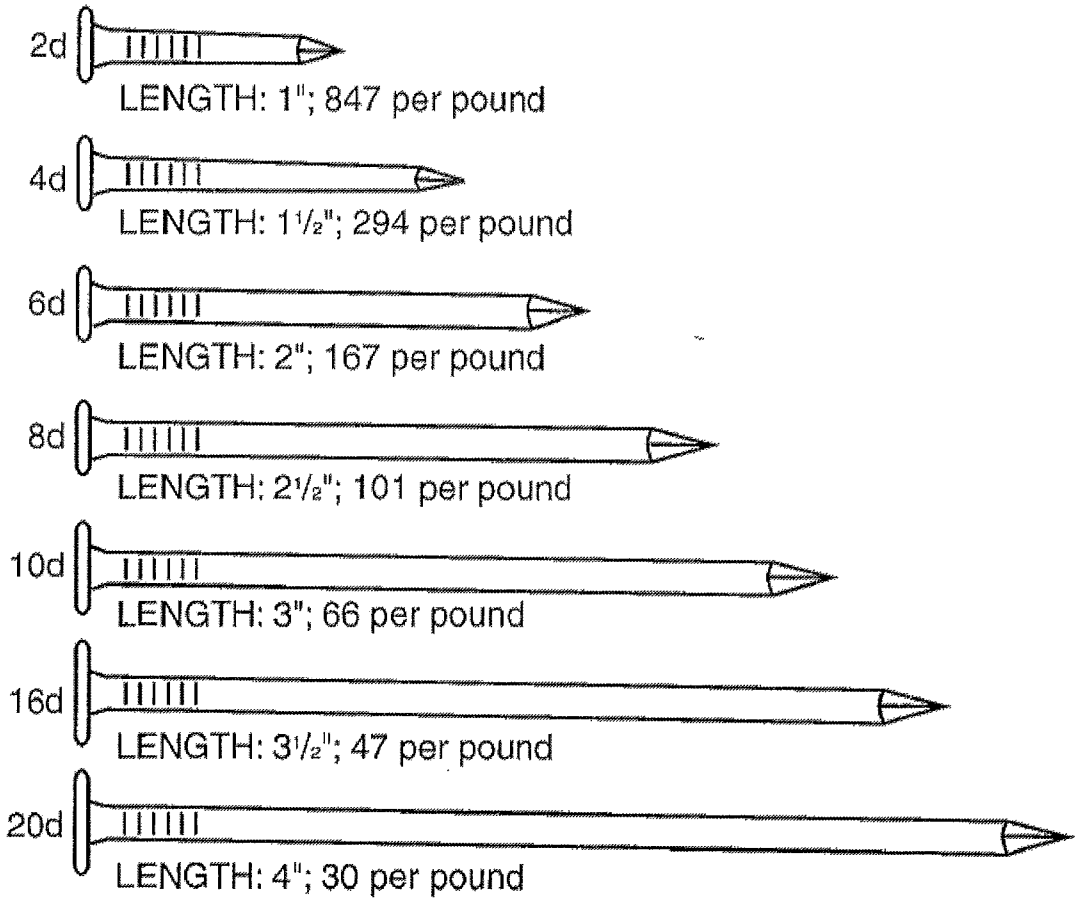
COMMON NAILS

The success of most construction projects depends on using the right nails. Read the following paragraphs and study the chart before answering questions 1 through 6.

A common nail is used most often in wood construction when two pieces must be fastened together. The nail size and shape are important. The shaft of the common nail is thick, making it easy to drive without bending; the head is broad, preventing the nail from pulling through and groves on the shaft keep the nail from pulling loose.

When ordering common nails, you use the term penny for length. The symbol "d" stands for penny. A tradesperson ordering eight-penny nails will write "8d nails". Each penny designation refers to the length, shaft diameter, head size and weight. For example, an order for 10 pounds of 20d common nails will always mean 300 nails that are 4 inches long.

The chart below can be used to obtain length, estimate the number of nails per pound and determine the proper nail for the job. The length of the nail should be at least two times the thickness of the board being nailed. A board that is one inch thick requires a nail that is at least two inches long. For structural integrity and safety, it is important that the nail does not protrude through the pieces being fastened together. The chart below shows that anything less than a 6d nail would be too short to nail a one-inch thick board.



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Reading Practice

WHERE DOES ELECTRICITY COME FROM?

Where does electricity come from? Some of you may smartly reply, "Electricity comes from the outlet in the wall". If only it was that simple! Let us dig deeper into the making of the electrical power that we take for granted. Electricity is a property of atoms, so to understand where electricity comes from; you will need a general knowledge of atoms.

Atoms are the building blocks of all matter. Everything from the book you are reading to the air you are breathing is made up of millions of tiny atoms. Atoms contain several types of electrically charged particles whose structure can be compared to a miniature solar system. An atom contains a large central core (like our sun) called the nucleus. Orbiting around the nucleus are tiny negatively (−) charged particles called electrons. There is a lot of empty space between the nucleus and the orbiting electrons. The nucleus contains two types of particles; neutrons which have no electrical charge (thus the name neutrons for neutral), and protons which have one unit of positive (+) charge each. The electrons orbiting the nucleus are much smaller in size than the neutrons and protons, but have equally as strong a negative electrical charge as the proton has in positive charge. When equal numbers of protons and electrons are found in an atom their charges cancel or balance each others effect to give the atom an overall zero charge. Atoms can be made to lose or gain electrons, which offsets the electrical balance of charges. Atoms with more electrons than protons are said to have a negative overall charge, and atoms with fewer electrons than protons are said to posses a positive charge. Materials made with these charged atoms have electrical potential, which means that they have the ability to produce electricity.

So how do you make atoms give up electrons? There are three ways to make an atom lose electron(s) and, thus, gain an overall electrical positive charge. The first method is friction; rub off the outer orbiting electron(s). The second method is chemical action. The third method involves the use of magnets and wire. These are the three methods used to generate electrical power.

The term static means stationary or non-moving, so, static electricity is non-moving electricity. Static electricity is produced by friction. As two materials rub together electrons are rubbed off from one substance and are picked up by the other substance. You have probably used this technique as a child to make a rubber balloon "stick" to a wall by rubbing it on your hair (your hair picked up a charge too). Sliding across leather car seats in a nylon suit, or walking across a wool rug also generates static electricity from friction. Walking across a wool rug generates friction between your shoes and the rug. Electrons are rubbed off the carpet, so the carpet takes on a positive charge. Your body picks up the electrons removed from the carpet, so your body gains a negative charge. Your body holds that charge (static) until it can be transferred by contact with another object. The sudden release of charge from your body is the static discharge or shock. Lightning is another form of static discharge when huge numbers of atoms become charged. Lightning is generated when rain clouds move rapidly through the atmosphere. The lightning bolt is the immense release of static charge.

Dry cells, lead storage batteries, and all sorts of chemical batteries use chemical action to produce large numbers of free electrons at the negative pole. When the negative pole of a battery is connected to the positive terminal via a conductor (wire), electrical current "flows" through the circuit due to the attraction of unlike charges and the imbalance of charges (electromotive force) of the poles from the chemical action. Batteries produce a current that flows in one direction. Electrical current that flows in one direction is known as direct current or DC.

Motors, meters, generators, transformers, and electromagnets all produce electricity from magnets and wires. As the magnetic fields of the magnet "cut" across a coil of wire the atoms in the wire become electrically charged and flow in the wire. In the devices mentioned one of two methods are applied; either a coil of wire rotates around a stationary magnet, or a magnet rotates inside a coil of wire. In either case the north pole of the magnet generates electrical current in one direction and the south pole causes the current to reverse and flow in the opposite direction. The direction of the flow of atoms in the conductor alternates as the north then the south magnetic fields cut the coil of wire. This is called alternating current. The electricity in your home is probably generated by the use of a magnetic core surrounded by a coil of wire.

Arithmetic

Practice Test 1

1. $48 + 31$

2. $79 + 8$

3. $65 + 43$

4. $845 + 376$

5. $34 + 346 + 8 + 4371$

6. $74 - 33$

7. $52 - 14$

8. $481 - 92$

9. $424 - 375$

10. $5682 - 683$

11. 43×3

12. 56×48

13. 507×62

14. 491×240

15. 6060×7009

16. $7 \overline{)2163}$

17. $8 \overline{)174}$

18. $45 \overline{)810}$

19. $37 \overline{)3850}$

20. $391 \overline{)71202}$

ANSWERS

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

1. 79
2. 87
3. 108
4. 1,221
5. 4,759
6. 41
7. 38
8. 389
9. 49
10. 4,999
11. 129
12. 2,688
13. 31,434
14. 117,840
15. 42,474,540
16. 309
17. 21 r6 or 21 6/7
18. 18
19. 104 r2 or 104 r 2/37
20. 182 r40

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Arithmetic

Practice Test 2

_____1. $8 + 11$

_____2. $71 - 19$

_____3. 8×5

_____4. 9×13

_____5. $54 \div 6$

_____6. $112 \div 4$

_____7. $1.75 - .017$

_____8. $72 + 59$

_____9. 18×4

_____10. $1.768 + .189$

_____11. 1.008×3.5

_____12. $47 - 21$

_____21. $\frac{29}{42} + \frac{12}{21}$

_____22. $1.67 \times \frac{3}{4}$

_____23. $67 + 23$

_____24. $84 \div 4$

_____25. $1.68 \div 1.2$

_____26. $\frac{1}{6} \div \frac{1}{2}$

_____27. $175 - 143$

_____28. $\frac{29}{72} - \frac{5}{36}$

_____29. 17×12

_____30. 1.9×4.5

_____31. $4 \div .25$