

# Practice Attitude

# QUIZ



## Plumbing

## Plumbing & services

### Practice Aptitude Quiz

It is crucial for young people to build their career management skills so they can make informed choices regarding their study and training options and navigate a pathway towards their occupation and career of choice.

This career development resource combines labour market information with a practical industry specific activity to help develop awareness about the skills required to pursue a career pathway in the Plumbing and Services Industry.

## PART 1: About the Plumbing and services Industry

### 1. The Plumbing and Services Industry in a nutshell

#### Key sectors:

- > General Plumbing
- > Plumbing (Mechanical Services)
- > Roof Plumbing
- > Gas Fitting
- > Fire Protection

Plumbing and services occupations include urban irrigation, drainage, metal roofing and cladding, plumbing, mechanical services, roof plumbing, gas fitting and fire protection services.

#### Types of Plumbing work

- > Draining - means the installation, removal, repair and maintenance of pipes and fittings involved with stormwater and waste.
- > Gasfitting - means the installation, disconnection, repair and maintenance of pipes, fittings, appliances and associated ventilation equipment involving gases such as fuel, liquefied petroleum, manufactured and natural gases.
- > Mechanical Services Plumbing - means work carried out in connection with heating, cooling or ventilation of buildings. This may include installation, removal, repair and maintenance of pipes, valves, regulators, tanks and air conditioning systems.
- > Roof Plumbing - means the installation, renewal, repair and maintenance of roof coverings and roof water systems including gutters, rainwater piping and downpipes.
- > Sanitary Plumbing - means installation, removal, renewal, repair and maintenance of pipes, including ventilation of those pipes and fittings to receive and convey sewage.
- > Water Plumbing - means installation, removal, repair and maintenance of pipes and fittings designed to convey hot and cold water.
- > Fire Protection - means installation and maintenance of fire protection systems.

2. **Key occupation information** (Sources Job Outlook - [www.joboutlook.gov.au](http://www.joboutlook.gov.au) and Australian Jobs 2011 [www.deewr.gov.au/Employment/ResearchStatistics/Documents/AustralianJobs.pdf](http://www.deewr.gov.au/Employment/ResearchStatistics/Documents/AustralianJobs.pdf) )

**Weekly average earnings for major occupations:**

- > Plumber - \$1,040
- > Gasfitter - \$1,040
- > Plumber (Mechanical Services) - \$1,040
- > Roof Plumber - \$1,040
- > Drainage and Mechanical Plumber - \$1,040
- > Air Conditioning and Mechanical Services Plumber - \$1,040
- > Fire Protection Systems Technician - \$1,040

**Plumbers** lay out, test and maintain pipes, fixtures, metal roofing, fittings, gas meters and regulators. They install equipment such as boilers, pumps, heating and cooling systems, natural gas appliances, water tanks and solar water heating systems.

Typical duties include:

- prepare and/or study drawings and specifications to work out the layout of plumbing;
- determine systems and materials required;
- find and mark position for connections, then cut holes through walls and floors to accommodate pipes, measure pipes and mark cutting or bending lines;
- cut, thread and bend pipes, assemble and install piping, valves and fittings, join pipe sections and secure pipes;
- test lines as required by local plumbing regulations;
- install equipment such as boilers, pumps, heating and cooling systems, gas appliances, water tanks, water heaters, solar water heating systems, fixtures such as toilets, wash basins and industrial processing units and;
- maintain and repair plumbing systems.

Specialisations:

- > Drainer;
- > Gasfitter;
- > Sanitary Plumber;
- > Gas Main and Line Fitter;
- > Mechanical Services and Air Conditioning Plumber;
- > Fire Protection Systems Technician.
- > Job prospects - Above average
- > Weekly earnings - \$1,040
- > Occupation size - 92,200

Potential entry level qualifications:

- > Certificate III in Plumbing
- > Certificate III in Plumbing (Mechanical Services)
- > Certificate III in Roof Plumbing
- > Certificate III in Gas Fitting
- > Certificate III in Fire Protection

## About the qualifications

Every qualification includes an emphasis on “Employability Skills” or the skills that employers identify as playing a significant part in contributing to an individual’s effective and successful participation in the workplace.

Employability skills are non-technical skills. They are also sometimes referred to as generic skills, capabilities, enabling skills or key competencies.

Employability Skills are:

- > **Communication skills** that contribute to productive listening and understanding, speaking clearly and directly and harmonious relations across employees and customers;
- > **Teamwork skills** that contribute to productive working relationships and outcomes;
- > **Problem-solving skills** that contribute to productive outcomes;
- > **Initiative and enterprise skills** that contribute to innovative outcomes;
- > **Planning and organising skills** that contribute to long and short-term strategic planning;
- > **Self-management skills** that contributes to employee satisfaction and growth;
- > **Learning skills** that contribute to ongoing improvement and expansion in employee and company operations and outcomes;
- > **Technology skills** that contribute to the effective performance of tasks.

### 3. Career Pathways

- > Apprenticeships Pathways - view potential career pathways for this industry - Go to [www.aapathways.com.au/search\\_job\\_02.cfm?c=31](http://www.aapathways.com.au/search_job_02.cfm?c=31)

Other useful careers sites are:

- > Construct My Career - [www.constructmycareer.com.au](http://www.constructmycareer.com.au)
- > Be Constructive (QLD) - [www.csq.org.au](http://www.csq.org.au)
- > My Future - [www.myfuture.edu.au](http://www.myfuture.edu.au)
- > Job Guide - [www.jobguide.thegoodguides.com.au](http://www.jobguide.thegoodguides.com.au)
- > Career Factsheets - [www.ncdw.com.au/index.php/Career-Factsheets.html](http://www.ncdw.com.au/index.php/Career-Factsheets.html)

### 4. Job Hunting

**Job vacancy website:**

- > Australian Jobsearch - [www.jobsearch.gov.au/findajob/advancedsearch.aspx](http://www.jobsearch.gov.au/findajob/advancedsearch.aspx) The Australian Government's job site. Input your postcode, select the Occupation Category "Technicians and Trade Workers", then select "Plumbers", scroll down to the "Additional Search Criteria" section and click on "Apprenticeships/Traineeships", then click on the "Find Jobs" button.

**Job hunting hints and labour market information:**

- > Australian Apprenticeships Pathways - [www.aapathways.com.au](http://www.aapathways.com.au) Click on "Search" to find potential Australian Apprenticeships occupation ideas. You can also find Job Hunting hints in the "Self Help" menu item.
- > My Future: Labour Market Information - [www.myfuture.edu.au/services/default.asp?FunctionID=5400](http://www.myfuture.edu.au/services/default.asp?FunctionID=5400) Click on the map or use the drop down menu to find general labour market information for your region including top occupations and incomes. Data is based on the most recently available census.

### 5. Useful Contacts

**Here are some links to a range of support services, organisations and government agencies that may help with careers research and job hunting:**

**Support services:**

- > Search for your local Australian Apprenticeships Centre - [www.aapathways.com.au/search\\_aac.cfm](http://www.aapathways.com.au/search_aac.cfm)
- > Group Training Organisations employ Australian Apprentices and place them with businesses - [www.grouptraining.com.au](http://www.grouptraining.com.au)
- > Job Services Australia providers work with eligible job seekers to develop an individually tailored Employment Pathway Plan. The plan maps out the training, work experience and additional assistance needed to find job seekers sustainable employment - [www.jobsearch.gov.au/provider/ProviderLocation.aspx?ProviderType=JNS&](http://www.jobsearch.gov.au/provider/ProviderLocation.aspx?ProviderType=JNS&)

## 5. Useful Contacts - continued

### Industry Organisations:

- > Construction and Property Services Industry Skills Council - [www.cpsisc.com.au](http://www.cpsisc.com.au)
- > The Master Plumbers' & Mechanical Services Association of Australia - [www.plumbingcareer.com.au](http://www.plumbingcareer.com.au)
- > Air Conditioning and Mechanical Contractors' Association - [www.amca.com.au](http://www.amca.com.au)
- > Irrigation Association of Australia - [www.irrigation.org.au](http://www.irrigation.org.au)
- > National Fire Industry Association - [www.nfia.com.au](http://www.nfia.com.au)
- > Metal Roofing & Cladding Association of Australia - [www.mrcaa.com.au](http://www.mrcaa.com.au)
- > Plumbing Trades Employees Union - [www.plumbers.cepu.asn.au](http://www.plumbers.cepu.asn.au)
- > Australian Workers Union - [www.awu.org.au](http://www.awu.org.au)

### Government Agencies:

- > Government website about the Building and Construction Industry - [www.australia.gov.au/topics/business-and-industry/industry/building-and-construction-industry](http://www.australia.gov.au/topics/business-and-industry/industry/building-and-construction-industry)

## PART 2: About this Resource

### Guidance

This Practice Aptitude Quiz is intended to be a general illustration of some of the key learning standards required of people attempting an Australian Apprenticeships entry level qualification in the Plumbing and Services Industry.

**This Practice Aptitude Quiz is neither a formal tool nor a direct pre-requisite for any job application.**

This Quiz has been developed with the assistance of Industry and Registered Training Organisations, based on the needs and requirements of the Industry sector.

This Practice Aptitude Quiz has three components: Literacy, Reading and Comprehension; General Knowledge and; Mathematics. The mathematics skills required to complete the questions contained within this document are equivalent to mathematics at the Year 10 level.

The Quiz can be used by different organisations and people such as careers practitioners with young people, Group Training Organisations and Job Services Australia providers with job seekers.

The Practice Aptitude Quiz can be:

- used by careers practitioners with individuals or in a class setting to provide general guidance on the level of study involved in undertaking an entry level qualification in this industry;
- provided to people to enable them to practice their skills before sitting an actual aptitude test;
- used by teachers as a guide to industry math requirements at the entry point of this particular Australian Apprenticeship career path.

The Quiz should be able to be completed in approximately 1 hour and 20 minutes.

**Please note that rates quoted in this for various items, including pay rates, are not meant to reflect today's values, but are used purely for mathematical purposes.**

Calculators may be used to complete this practice assessment, but the majority of the quiz should be attempted without calculators.

Answers are located at the end of the quiz.

### After the Quiz

There are a range of support services available to help you find out about courses that may help you improve your literacy and numeracy skills and also your readiness for work.

If you are still at school you should discuss any concerns you may have with your career practitioner. Further information may also be provided by a Job Services Australia provider, an Australian Apprenticeships Centre, a Group Training Organisation or a training provider.



## Useful Contacts

Here are some links to job seeker support services:

- > Search for your local Australian Apprenticeships Centre - [www.aapathways.com.au/search\\_aac.cfm](http://www.aapathways.com.au/search_aac.cfm)
- > Find a local Group Training Organisations - [www.grouptraining.com.au/Find/find\\_goto.html](http://www.grouptraining.com.au/Find/find_goto.html)
- > Job Services Australia providers work with eligible job seekers to develop an individually tailored Employment Pathway Plan. The plan maps out the training, work experience and additional assistance needed to find job seekers sustainable employment - [www.jobsearch.gov.au/provider/ProviderLocation.aspx?ProviderType=JNS&](http://www.jobsearch.gov.au/provider/ProviderLocation.aspx?ProviderType=JNS&)



# Part 3: The Quiz



## Section 1 - Literacy, Reading and Comprehension

### Spelling

1. The following text has 10 spelling errors in it. Correct those errors and list them in the order you find them in the text.

To become a plumber requires compleshion of an apprenticeship in Plumbing, Gasfitting and Draining. Employers genraly require the completion of at least Year 10, with good resolts in English and Maths. You may be able to start training for this vocation wile still at school.

The lenth of trainin can vary and may involve both on-the-job and off-the-job componants. The off-the-job training is provided through Registered Training Organisations.

Plumbing, Gasfitting and Draining are licensed occupasions, which means that in addition to your formel qualifications, a lisencc to work must be obtained by your local Licensing Authority.

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|-----|
| 1.  |
| 2.  |
| 3.  |
| 4.  |
| 5.  |
| 6.  |
| 7.  |
| 8.  |
| 9.  |
| 10. |

2. Write the correct form of the following words

- a. Bathroome \_\_\_\_\_
- b. Inspector \_\_\_\_\_
- c. Ocupation \_\_\_\_\_
- d. Invioce \_\_\_\_\_
- e. Sprinklar \_\_\_\_\_
- f. Plumming \_\_\_\_\_
- g. Gassfitting \_\_\_\_\_
- h. Draining \_\_\_\_\_
- i. Coper Pipe \_\_\_\_\_
- j. Sola Heating \_\_\_\_\_

## Comprehension

Read the following article and answer the questions that follow.

### Installing a bath

To install a bath you require an understanding of all relevant Australian Standards and approved fixing methods.

The bath may be placed into position at the construction stage (when the building is at the frame stage) or may be left out until the floor, ceiling and walls have been clad. The bath is less likely to be damaged when installed after other trades have completed their work.

If installed during the construction stage, other tradespeople must take care not to damage the bath while under construction. It would be your responsibility to see that it was adequately protected.

Plumbers often have to install a bath in an existing home. This is a much more difficult task than in a building under construction because:

- > Pipes need to be installed behind existing wall cladding;
- > The bath's waterproofing and support rim must be in behind the wall cladding - this may require extensive work on the wall.

Usually the builder is responsible for levelling, waterproofing and securing the bath, but the plumber must check prior to commencing further work that these are correct. The following steps must be checked:

- > Secure the bath
- > Allow adequate clearance for waterproofing to ensure a watertight installation
- > Level the bath

### Questions:

3. Why is it better to place the bath in position after the other trades have completed their work?

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4. Usually the builder is responsible for the levelling, provision of waterproofing and securing of the bath. What steps must the plumber check to ensure that these are correct?

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5. What must you have a knowledge of to install a bath?

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6. Why is it more difficult to install a bath in an existing home?

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**Read the following article and answer the questions that follow.**

The plumbing system of most homes comprises three things, namely the water supply system, the central drainage system, and the fixtures and appliances.

The main supply line makes the water available to all the taps in a home. This is provided either through the municipal corporation or council, or private suppliers. The supplier sets up a meter to measure the amount of water used in the home, and also issues a bill for water used and services delivered.

Generally, in a home, water enters from the main supply into the house. Then the main line is spilt into branches, with one of the two branches forming the supply to the water heater. After this connection is formed, the hot and the cold water lines run parallel to one another. The fixtures and the various appliances that run on this system are connected to these lines.

Drainage systems generally work using gravity. The waste water produced flows downwards through a junction of large sized drain pipes, which then opens into vent pipes. The working of drain waste and vent piping is quite complex. The angle is specified so that the drainage pipes allow the flow of waste water through the sewer system with the help of gravity.

All waste water ultimately reaches the waste stack. From there it flows to the sewer line and exits the house. Sewer gas however is vented through the openings in the roof of the vent.

Plumbing is an essential and constantly used element of every household. Breakdowns in a households plumbing system could create an urgent problem, may cause inconvenience and have the potential to cause damage to property.

# QUIZ

## Questions:

7. What three things does the water supply system of most homes comprise?

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8. Why is the angle of how pipes are connected important for waste water?

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9. How is the disposal of waste water and sewer gas different?

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10. What are the effects of a breakdown in a household plumbing system?

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## Section 2 – Mathematical and Comprehension Questions

### Numbers (Scientific Notation, Measurement, Number Values)

1. What unit from the list below would you use to measure:

|    |                |    |     |
|----|----------------|----|-----|
| kg | km/hr          | \$ | min |
| ml | m <sup>2</sup> | mm | °C  |

- a. length \_\_\_\_\_
- b. time \_\_\_\_\_
- c. temperature \_\_\_\_\_
- d. weight \_\_\_\_\_
- e. area \_\_\_\_\_
- f. speed \_\_\_\_\_
- g. volume \_\_\_\_\_
- h. cost \_\_\_\_\_

2. From the list of numbers below, select the one which is a:

|               |     |                |
|---------------|-----|----------------|
| $\frac{3}{8}$ | 25% | 16.37          |
| 35°           | 5:4 | $3\frac{1}{4}$ |

- a. percentage \_\_\_\_\_
- b. decimal number \_\_\_\_\_
- c. fraction \_\_\_\_\_
- d. mixed number \_\_\_\_\_
- e. ratio \_\_\_\_\_
- f. angle \_\_\_\_\_

3. Write as a number:

- a. two thousand six hundred and thirty four \_\_\_\_\_
- b. fifty six thousand and eighty seven \_\_\_\_\_

**4. Convert the following:**

- a. \$2.41 to cents \_\_\_\_\_
- b. 182 days to weeks \_\_\_\_\_
- c. 3 hours and 12 seconds to seconds \_\_\_\_\_
- d. 8 kilometres to metres \_\_\_\_\_
- e. 3.5 kilograms to grams \_\_\_\_\_

**5. One day Peter worked 6 hrs and 35 min and on another day 4 hrs and 40 min. What was the total time Peter worked?**

\_\_\_\_\_

**6. Jane the building clerk started work at 11:30am and finished at 2:10pm. How long did she work for?**

\_\_\_\_\_

**Arithmetic (Addition, Subtraction, Multiplication, Division)**

**7. Find the total of:**

- a.  $\$2 + \$21.45 + \$8.23$  \_\_\_\_\_
- b.  $18.32 + 471.019 + 315$  \_\_\_\_\_
- c.  $2.63\text{m} + 50\text{cm}$  \_\_\_\_\_

**8. Subtract:**

- a. 1,784 from 5,218 \_\_\_\_\_
- b. 29.461 from 43.18 \_\_\_\_\_

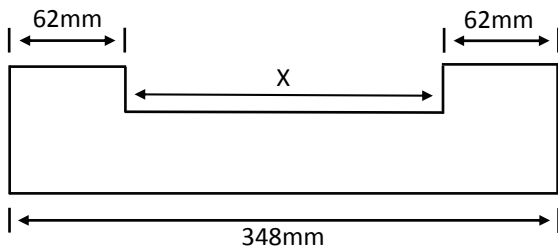
**9. Multiply:**

- a.  $6.87 \times 10$  \_\_\_\_\_
- b.  $13.8 \times 3$  \_\_\_\_\_
- c.  $46.2 \times 8.5$  \_\_\_\_\_

10. Divide:

- a.  $3.45 \div 10$  \_\_\_\_\_
- b.  $3024 \div 14$  \_\_\_\_\_
- c.  $56.2 \div 0.2$  \_\_\_\_\_

11. Find the value of x from the drawing.



x = \_\_\_\_\_

12. Which fraction is between  $\frac{1}{4}$  and  $\frac{3}{4}$ ? (Circle correct response)

- a.  $\frac{1}{2}$
- b.  $\frac{1}{8}$
- c.  $\frac{7}{8}$
- d.  $3\frac{1}{4}$

13. Evaluate the following:

- a. What is 10% of \$44 \_\_\_\_\_
- b. What is 25% of 12.84 \_\_\_\_\_

14. Which represents the best buy? (Circle the correct response)

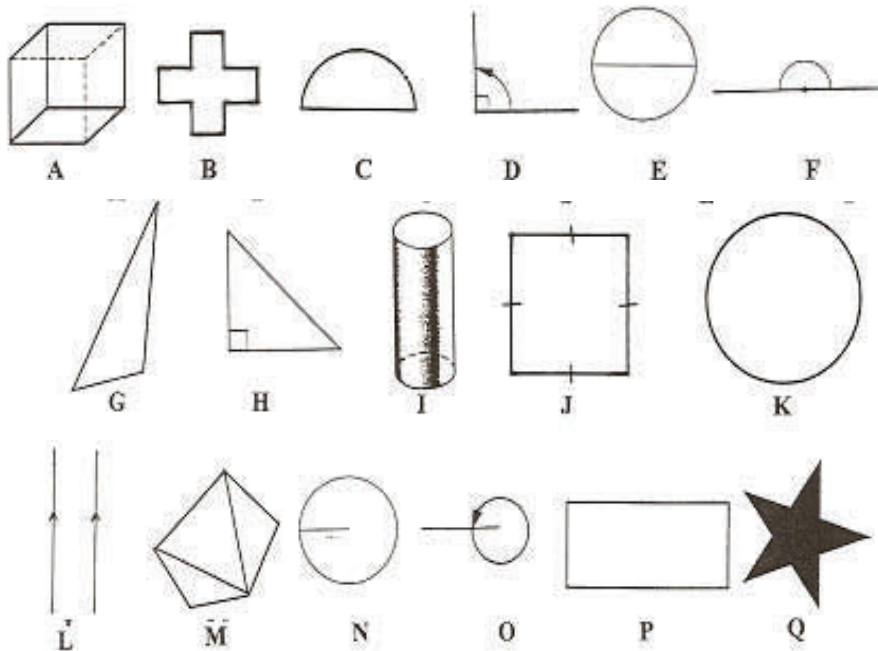
- a. 3 kg for \$4.00
- b. 15 kg for \$57.00



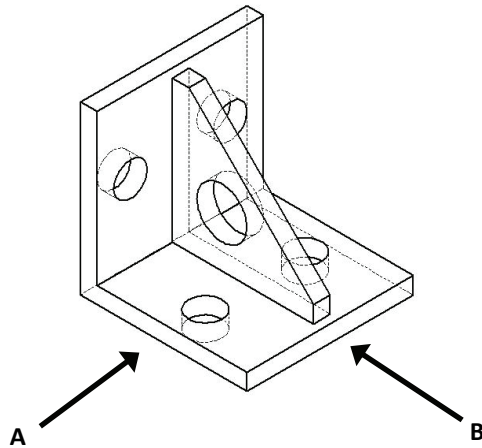
## Shapes

15. a. Which shape best represents:

|       |                       |  |
|-------|-----------------------|--|
| i.    | circle                |  |
| ii.   | triangle              |  |
| iii.  | rectangle             |  |
| iv.   | square                |  |
| v.    | semicircle            |  |
| vi.   | parallel lines        |  |
| vii.  | cross                 |  |
| viii. | star                  |  |
| ix.   | cube                  |  |
| x.    | cylinder              |  |
| xi.   | diagonal              |  |
| xii.  | right angle           |  |
| xiii. | revolution            |  |
| xiv.  | right angled triangle |  |
| xv.   | straight angle        |  |
| xvi.  | circle and diameter   |  |
| xvii. | circle and radius     |  |



b.



In the space provided below do two freehand drawings of the object above. Make your drawings of what the object would look like if you were standing at the points A and B.

Point A

Point B

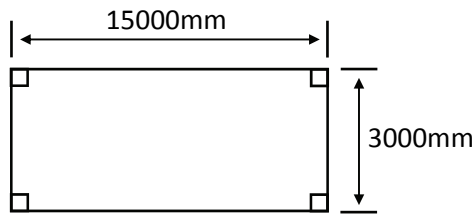
## Perimeter, Area

16. A tiler estimates there are 55 tiles to the square metre. How many tiles are needed for a 6 square metres wall?

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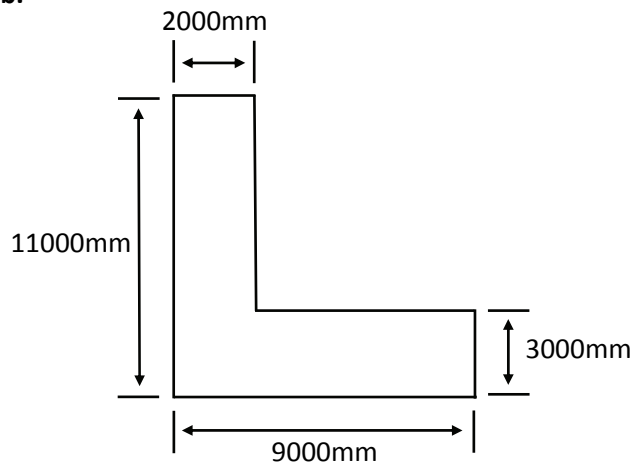
17. Find the perimeter of these shapes.

a.



Perimeter \_\_\_\_\_

b.



Perimeter \_\_\_\_\_

### Problem Solving

18. If a car is traveling at 60km/hr, how far will it travel in 3 hours?

\_\_\_\_\_

19. Calculate the cost of 40 hinges at \$3.00 a pair?

\_\_\_\_\_

20. What is the average of 12, 9 and 18?

\_\_\_\_\_

21. Two numbers add up to 40. Find the other number if one of the numbers is 15?

\_\_\_\_\_

22. John, a first year apprentice earns \$8.15 per hour for a 40-hour week. Find his weekly wage?

\_\_\_\_\_

23. If one stepladder costs \$98.00 how much would six stepladders cost?

\_\_\_\_\_

24. Find the missing numbers in the following:

a. 20 25 30 35 ? \_\_\_\_\_

b. 3 9 27 ? \_\_\_\_\_

c. 4 8 12 16 ? \_\_\_\_\_

d. 10 3 11 ? 12 5 \_\_\_\_\_

e. 64 32 16 ? 4 \_\_\_\_\_

25. Plastic water pipe costs \$19.00 for a 6 metre length. How many lengths of pipe could I buy for \$171.00?

\_\_\_\_\_

26. A lunch bill was divided equally among 6 people. The total of the bill was 48.60.

a. How much did each pay?

\_\_\_\_\_

b. If Tuesday is half price day, how much will each pay?

\_\_\_\_\_

27. Perry is a plumber and earns \$25.00 an hour for a normal 40 hour week. For any overtime, he receives time-and-a-half. How much does he receive for working 42 hours?

\_\_\_\_\_

28. Five litres of glue for jointing water pipe costs \$65.00. How much will 1 litre cost?

\_\_\_\_\_

29. Janni's yearly salary is \$45,000.00. Calculate his:

- a. monthly wage \_\_\_\_\_
- b. weekly wage \_\_\_\_\_

30. Huynh is a Plumber's Assistant and is paid \$15.00 per hour plus time and a half for any hours over 35 hours. If he worked 42 hours, what was his pay for:

- a. the first 35 hours work \_\_\_\_\_
- b. the overtime work only \_\_\_\_\_
- c. total pay \_\_\_\_\_

31. My car uses 18 litres of petrol every 300 kilometres. What is the rate of petrol consumption in litre/100km?

\_\_\_\_\_

32. A 3,600 litre water tank is a  $\frac{1}{4}$  full.

- a. How much water is in the tank? \_\_\_\_\_
- b. How much is empty space? \_\_\_\_\_

33. Read the following about Personal Protective Equipment (PPE) and then answer the questions that follow.

Personal protective clothing, overalls, hand protection and foot protection are often necessary and respiratory protective equipment may be required when dangerous gases and dusts are present.

Personal protective equipment (PPE) includes clothing, equipment and substances designed to be worn by a person to protect them from risks of injury or disease.

PPE is only to be used in the workplace where it is not reasonably practicable to control hazards by other means.

The information on the following page describes some PPE used to guard workers against specific hazards.

# QUIZ

Gloves



Photo A

Breathing Mask



Photo B

Goggles



Photo C



Sign A



Sign B



Sign C



Sign D

| Part of Body | Some Potential Hazards   |
|--------------|--|
| Head         | Falling objects  |
| Face & Eyes  | chemical splashes, fumes, sewage splashes,   |
| Hearing:     | Excessive noise  |
| Respiratory: | Dust, fumes, vapours, concrete dust  |
| Hands:       | Abrasion, irritant substances, vibration , electric shock  |
| Feet:        | Crushing, slipping, abrasion, irritant substances, wetness, electric shock, static electricity, puncture, cold/heat. |

## Questions

- a. Measuring and sawing overhead PVC pipe is common in the plumbing industry. What PPE would you use to perform this task.

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- b. When jackhammering concrete, chunks may fly up and concrete dust is in the air. What PPE is of use in this situation?

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- c. Unblocking a sewer occurs regularly in the life of a plumber. What PPE helps protect a worker in this situation?

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**Section 1 - Literacy, Reading & Comprehension Questions**

1. completion, generally, results, while, length, training, components, occupation, formal, licence
2. Bathroom, Inspector, Occupation, Invoice, Sprinkler, Plumbing, Gasfitting, Draining, Copper Pipe, Solar Heating
3. The bath is less likely to be damaged.  
Could add - other tradesmen do not have to worry about damaging the bath while completing their work, do not have to protect the bath while other work is being completed.
4. The plumber must ensure that the bath is secured into position, there is adequate clearance for waterproofing to ensure a watertight installation and the bath must be level.
5. All relevant Australian Standards and approved fixing methods.
6. It is more difficult to install a bath in an existing home because pipes need to be installed behind wall cladding and the baths waterproofing and support rim must be in behind the wall cladding which may require extensive work on the wall.  
Further explanation of what these mean could be written.
7. the water supply system, the central drainage system and the fixtures and the appliances.
8. The angle is specified so that the drainage pipes allow the flow of waste water through the sewer system with the help of gravity.
9. All waste water ultimately reaches the waste stack. From there it flows to the sewer line and exits the house. Sewer gas however is vented through the openings in the roof of the vent.
10. Breakdowns in a households plumbing system could create an urgent problem, may cause inconvenience and have the potential to cause damage to property.

**Section 2 – Mathematics**

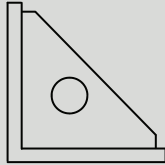
1. mm, min, °C, kg, m<sup>2</sup>, km/hr, ml, \$
2. 25%, 16.37, 3/8, 3 ¼, 5:4, 35°
3. a. 2,634      b. 56,087
4. a. 241cents      b. 26 weeks      c. 10,812seconds      d. 8000m      e. 3500g
5. 11 hours and 15 minutes
6. 2 hours and 40 minutes
7. a. \$31.68      b. 804.339      c. 3.13m or 313cm
8. a. 3,434      b. 13.719
9. a. 68.7      b. 41.4      c. 392.7



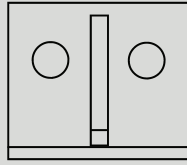
# QUIZ

10. a. .345      b. 216      c. 281
11. 224mm
12. a.  $\frac{1}{2}$
13. a. \$4.40      b. 3.21
14. a. 3kg for \$4.00
15. a. i. K, ii. G, iii. P, iv. J, v. C, vi. L, vii. B, viii. Q, ix. A, x. I, xi. M, xii. D, xiii. O, xiv. H, xv. F, xvi. E, xvii. N

b.



SIDE A



SIDE B

16. 330 bricks
17. a. 36,000mm      b. 40,000mm
18. 180km
19. \$60
20. 13
21. 25
22. \$326
23. \$588
24. a. 40      b. 81      c. 20      d. 4      e. 8
25. 9
26. a. \$8.10      b. \$4.05
27. \$1075.00
28. \$13
29. a. \$3,750      b. \$865.40
30. a. \$525      b. \$157.50      c. \$682.50
31. 6L/100km
32. a. 900litres      b. 2700litres
33. a. goggles, gloves  
b. goggles, gloves, hearing protection, foot protection, breathing mask  
c. goggles, gloves, foot protection

## Contributions

This Practice Aptitude Quiz would not have been possible without the support of the State Government of South Australia, Group Training Australia (SA) Inc and its members.

**This Practice Aptitude Quiz was developed by:**



**Group Training South Australia - [www.gtasa.com.au](http://www.gtasa.com.au)**

Group Training Australia (SA) (GTA SA) is a network of independent not for profit organisations located in metropolitan Adelaide and all major population centres throughout the state. These organisations operate on either an industry or regional basis and collectively they provide employment for in excess of 4,000 apprentices and trainees.

GTA SA members are:

- > AFL SportsReady - [www.aflsportsready.com.au](http://www.aflsportsready.com.au)
- > ATEC Group Training - [www.atec.asn.au](http://www.atec.asn.au)
- > Australian Industry Group Training Services - [www.aigts.com.au](http://www.aigts.com.au)
- > Career Employment Group - [www.ceg.net.au](http://www.ceg.net.au)
- > Group Training Employment - [www.gte.org.au](http://www.gte.org.au)
- > Hospitality Group Training - [www.hospitalitysa.com.au](http://www.hospitalitysa.com.au)
- > Maxima Group Training - [www.maxima.com.au](http://www.maxima.com.au)
- > Motor Trade Association Group Training Scheme - [www.mtagts.asn.au](http://www.mtagts.asn.au)
- > Murraylands Training & Employment Association of SA Inc - [www.mteasa.com.au](http://www.mteasa.com.au)
- > PEER VEET - [www.peer.com.au](http://www.peer.com.au)
- > Plumbing Industry Association Group Training - [www.piasa.com.au](http://www.piasa.com.au)
- > SMGT Total Employment Solutions - [www.smgmt.com.au](http://www.smgmt.com.au)
- > Statewide Group Training - Torrensville - [www.statewideapprenticeships.com.au](http://www.statewideapprenticeships.com.au)
- > Trainee and Apprentice Training Service Inc (TAPS) - [www.tapssa.com.au](http://www.tapssa.com.au)

**With specific thanks to:**



**Trainee and Apprentice Training Service Inc (TAPS) - [www.tapssa.com.au](http://www.tapssa.com.au)**

TAPS (Trainee & Apprentice Placement Service) is an independent Plumbing and Roofing Industry Group Training Organisation. We employ, monitor, train and supply Quality Endorsed Apprentices to Host Employers under a flexible work arrangement. TAPS is an easy and cost effective alternative to employing your own Apprentices. We do all the paperwork, arrange the training and on going support for the Apprentice.

Wherever you want to go with your Plumbing & Roof Plumbing career TAPS can get you there.



**The Plumbing Industry Association of SA Inc - [www.piasa.com.au](http://www.piasa.com.au)**

The Plumbing Industry Association of SA Inc. is the peak industry association representing Licensed Plumbers and Gasfitters, and affiliated members including Merchants and Manufacturers of Plumbing hardware. The Association has a group training service supplying and mentoring quality plumbing apprentices, to ensure the industry has a continuing supply of skilled tradespeople, and its members are able to sustain viable businesses.



**Australian Apprenticeships Pathways Website - [www.aapathways.com.au](http://www.aapathways.com.au)**

This website provides sample Australian Apprenticeships job descriptions and links to more Australian Apprenticeships information and resources. The site is funded by the Department of Education, Employment and Workplace Relations.



**Construction and Property Services Industry Skills Council - [www.cpsisc.com.au](http://www.cpsisc.com.au)**

Construction and Property Services Industry Skills Council (CPSISC) The CPSISC represents the workforce training and development needs of an extremely large and vitally important sector of the Australian economy - the Construction and Property Services Industries.



**The Career Education Association of Victoria - [www.ceav.vic.edu.au](http://www.ceav.vic.edu.au)**

The CEAV is the Victorian peak body for secondary school career practitioners, work experience coordinators, VET coordinators and MIPS coordinators. The CEAV provides professional development opportunities for members and also works with business, industry, and the education and training sector.



**Industry Training Australia P/L - [www.itaust.com.au](http://www.itaust.com.au)**

Industry Training Australia (ITA) develops and delivers information and communication services, including the Australian Apprenticeships Pathways website, for service provider networks and the general public.

**For enquiries about this Practice Aptitude Quiz contact the Australian Apprenticeships and Traineeships Information Service on 1800 338 022.**