Numeracy for Work and Community Life

Skills and Applications Task

Task 4

1. With a partner complete the Distance in Metres activity sheet.
   You will need to estimate the distance you can throw or kick an object, then measure the distance accurately. You then need to convert measurements as indicated.

2. Work through the 7 questions on the worksheet provided. Complete all calculations on the sheet. You may use a calculator to help you, or you can ask for help.

3. Complete the 3 questions distributed on perimeter of the rectangle and two triangles. Show any working out that is necessary and circle the correct answer.

4. Complete the worksheet on 'Finding the Area'; set all work out neatly on the page provided for your calculations.

5. Complete the 3 activities on measuring an angle. Write your answers clearly in the box provided.

MEASURMENT:

Record your best javelin throw

In metres 30m

Convert to centimeters 3000 cm

Convert to millimetres 30,000 mm

What measurement is best used to measure your throw? metres

Why do you think this is the best measurement?

Record your best discus throw.

In metres 15 m.

Convert to centimetres 1015cm

Convert to millimetres 10150mm

Record your best shot put.

In metres 5

Convert to centimetres 500 cm

Convert to millimetres 5000 mm

Numeracy for Work and Community Life

Distances Metres

In Metres	Estimate	Actual
Estimate your best kick.	45m 38m	

Estimate the distance from the boarding house to Mackee Mall.

70m
75m

Estimate the distance you can throw a ball.

60m
43.48

My best kick was 38m
this 3800cm
this 38000mm
My Best throw was 48m
this is 4800cm
this is 48000mm

The lengths of two lines are 475mm and 47cm respectively. Which line is shorter length?

475mm 470mm

47cm is smaller

25mm

19mm

Creepy the snail crawls 25mm whilst Slimey the slug moves 1.9cm. What is the total distance (in cm) travelled by Creepy and Slimey?

44mm 4.4 cm

In the same period of time, a snail moves 5cm, a student walks 30m and a bird flies 1.2km. Find the total distance (in metres) travelled by all three in this time.

5cm = 5 ÷ 100 = .005m

30m = 30m

1.2km = 1200m

1km = 1000m

.2km = 200m

A plan shows the length of a wall as 2.5m and the width of a window as 760cm. What is the difference (in metres) between the length of the wall and the width of the window?

1230.05m

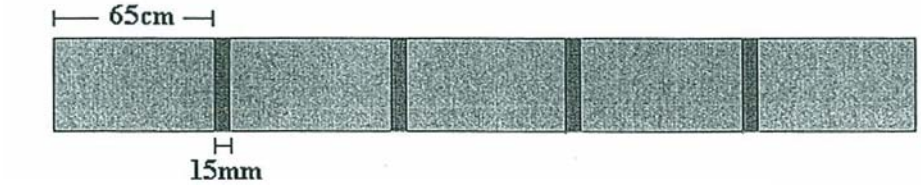
7.6m

2.5m

760cm

5.1m

A path is made of 5 concrete slabs each 65cm long. There is 15mm of grouting between the tiles as shown in the diagram:



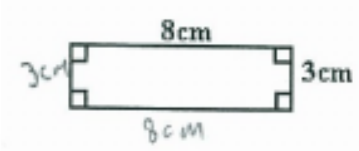
65
+ 15 mm
80 cm

What is the length of the path? Express your answers in metres.

3.85m

80
×4
320 cm
+ 65 cm
385 cm

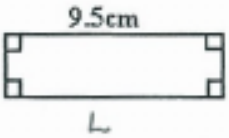
4 at 80 cm.
1 at 65 cm.



The perimeter is:

A. 11cm B. 24cm C. 22cm D. 48cm

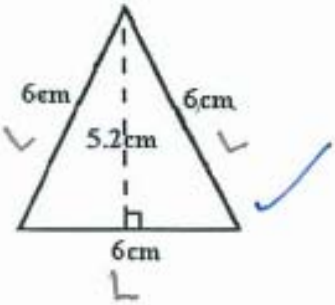
Perimeter = 2L + 2W
= 19 + 4.6
= 23.6



The perimeter is:

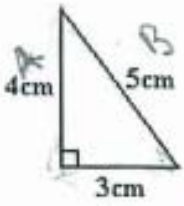
A. 23.6cm B. 11.8cm C. 21.85cm D. 43.7cm

Perimeter = ~~4W~~
= 3L
= 18



The perimeter of the triangle is:

A. 9cm B. 18cm C. 15.6cm D.31.2cm



P = A + B + C
= 4 + 5 + 3
= 12

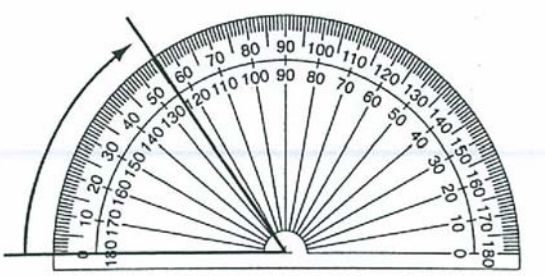
The perimeter of the triangle is:

A. 6cm B. 12cm C. 60cm D. 30cm

- Place the centre of the protractor at the corner (vertex) of the angle.
- Align one line of the angle with a zero line on the protractor.
- Take the reading from where the second line of the angle crosses the scale on the protractor.

  Hint: Protractors can be read using either the inside or outside scale depending on which zero is used.

Q. Using the protractor measure the size of the angle shown.

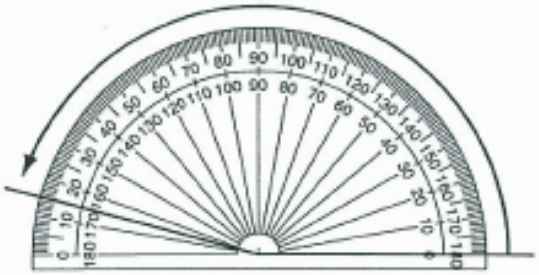


A. 55°

Read from the outside scale.

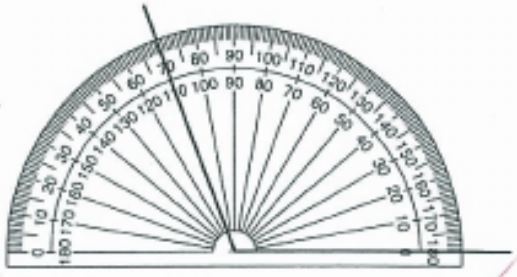
One line of the angle is at 0° and the other line of the angle extends around to 55°

a) Using the protractor measure the size of the angle shown.



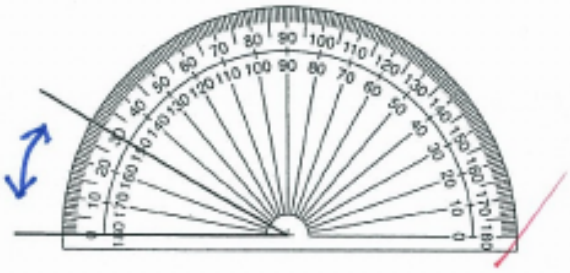
165°

b) Using the protractor measure the size of the angle shown.



140°

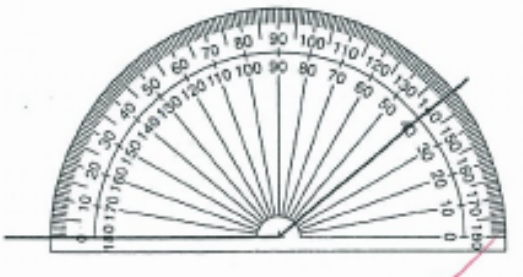
c) Using the protractor measure the size of the angle shown.



150°

30°

d) Using the protractor measure the size of the angle shown.



140°

- Match the point of the angle and a corner of a Maths Mate.
- Align one line of the angle with a side of the page. If the other line of the angle extends beyond the page, then the angle is greater than a right angle.

Example: Turning a quarter of the way around a circle is turning at right angles.

Hint: *A* right *angle measures 90° (degrees).* It is marked with a *corner.*

Q. Is the angle shown below "less than", "equal to" or "greater than" a right angle?

A. **greater than**

The angle appears greater than 90°. Check by placing the corner of a Maths Mate inside the angle.

a) Is the angle shown below "less than", "equal to" or "greater than" a right angle?

less than

b) Is the angle shown below "less than", "equal to" or "greater than" a right angle?

greater

c) Is the angle shown below "less than", "equal to" or "greater than" a right angle?

equal

d) Is the angle shown below "less than", "equal to" or "greater than" a right angle?

greater

e) Is the angle shown below "less than", "equal to" or "greater than" a right angle?

less

f) Is the angle shown below "less than", "equal to" or "greater than" a right angle?

less

Finding the Area

Mr White is constructing the garden beds in the vegie garden for planting.
The total area he can use in the garden is 40 square metres.

1. One planter box is 4 metres by 3 metres, what is the area of the planter box?

area of Planter box = length x width
= 4 x 3
= 12 sqm ✓

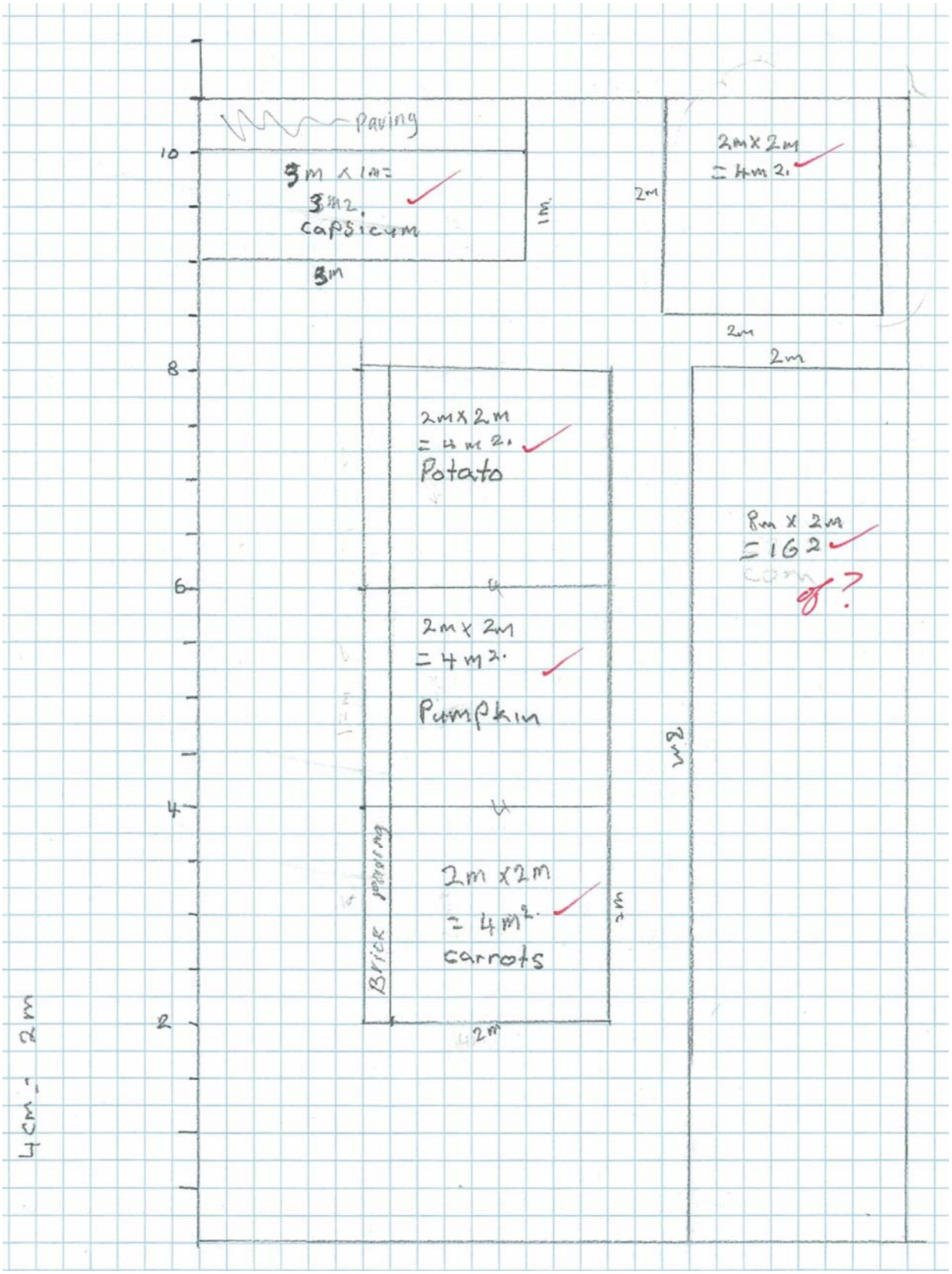
2. How many planter boxes of 4 metres by 3 metres could fit in the garden area?

Nuber of planter boxes = 40 ÷ 12
= 3 boxes

3. Design your own vegie garden. You have an area of 65 square metres.

   Plan out your vegie garden into planter boxes or garden beds. Allow for paths and shaded areas as well.

Stage 1 Numeracy for Work and Community Life annotated student response for use in 2011
1nwc10-AT1-wsann04-C-v0.1.doc (March 2011)



The perimeter of the raised garden bed is measuring

1.5 + 1.5 + 3.15 + 3.15
= 3 + 6.30 ✓
= 9.30m

A = L x B ✓

1.5 x 3.15

2.15
x 2

3.15 x
x 1.5
1575 ✓
315 ✓
4.725