



Year 7
Mini Test 7

40

= _____ %

Name: Solutions

Date: _____

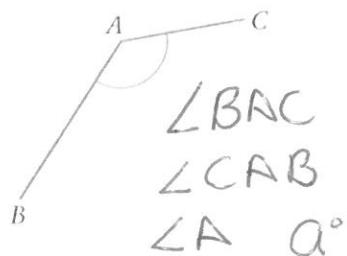
Show working and answers on this sheet. Show working in sufficient detail to support your answers. Incorrect answers without supporting reasoning may be allocated zero marks.

Equipment: Calculator and protractor

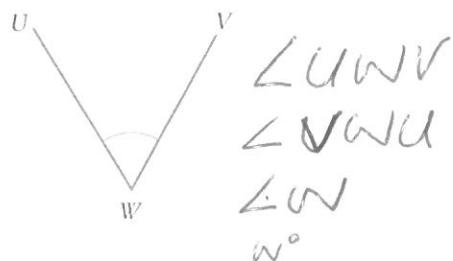
2 each

- 1) Name each of these angles in two different ways.

a)



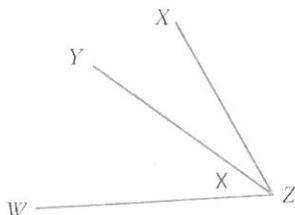
b)



(2 marks)

- 2) The name of the angle marked X is which of the following?

(1 mark)



a) $\angle XZW$

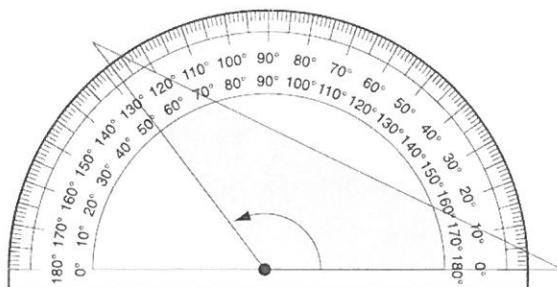
b) $\angle XZY$

c) $\angle WYZ$

d) $\angle YZW$

- 3) What is the size of the angle in the shaded triangle marked by the arrow?

(1 marks)



128°



- 4) Draw the following angles:

(3 marks)

a) 120°

b) 340°

1 mark

2 marks

5) Give an example of each type of angle underneath the name:

(4 marks)

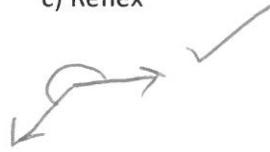
a) Acute



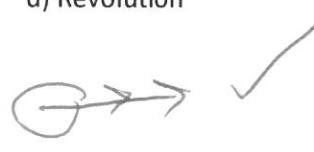
b) Obtuse



c) Reflex



d) Revolution

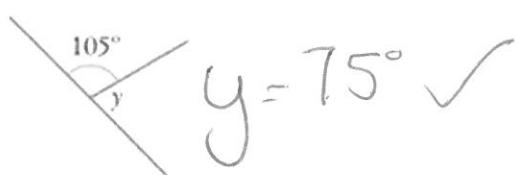


Have to mark the angle to get mark.

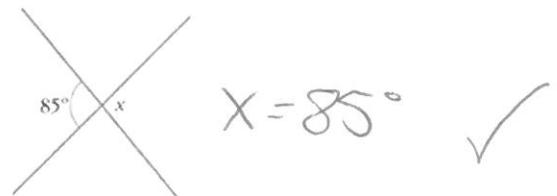
6) Find the value of the unknown:

(9 marks: 1, 1, 1, 1, 2, 2, 1)

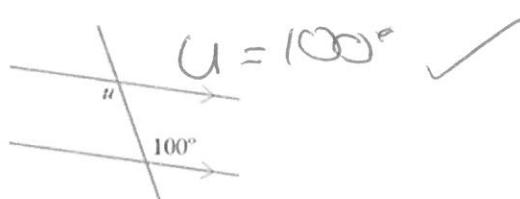
a)



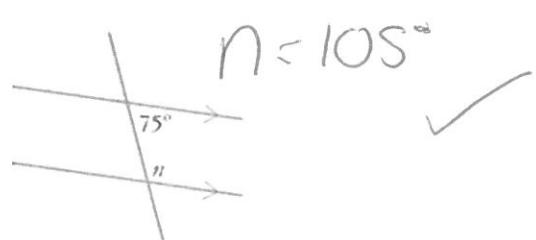
b)



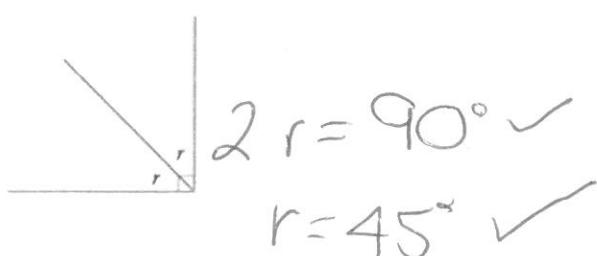
c)



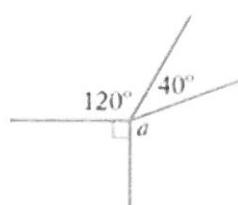
d)



e)

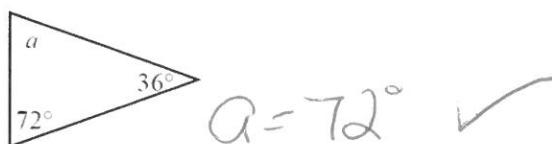


f)



$$\begin{aligned} a &= 360 - (120 + 40 + 90) \\ &= 110^\circ \end{aligned}$$

g)



- 7) A triangle has two equal sides and one angle of 98° . What is another angle in this triangle? (2 marks)

$$2x = 180 - 98 \checkmark$$

$$= 82^\circ$$

$$x = 41^\circ \checkmark$$

- 8) Complete the table below: (3 marks)

Decimal	Percentage	Fraction
0.12	12%	$\frac{12}{100}$
0.6	60%	$\frac{60}{100}$
0.4	40%	$\frac{2}{5}$

✓
✓
✓

- 9) What percentage is 16 marks out of 20 marks? (1 mark)

$$\frac{16}{20} \times 100 = \frac{80}{100} = 80\% \checkmark$$

- 10) What is \$10 as a percentage of \$40? (1 mark)

- a) 4% b) 10% c) 25% d) 40%

- 11) Calculate 75% of 40 (1 mark)

$$30 \checkmark$$

- 12) 20% of the 140 photographs at an exhibition were black-and-white. How many black-and-white photographs were there? (1 mark)

$$28 \checkmark$$

- 13) Kyle won 17 games out of a possible 20. What percentage of games did he lose? (2 marks)

$$\frac{3}{20} \checkmark = \frac{15}{100} = 15\% \checkmark$$

- 14) The Maths class has 11 girls and 13 boys. (2 marks: 1, 1)

- a) What is the ratio of boys to girls?

$$13:11 \checkmark$$

- b) What is the ratio of girls to the total number in the class?

$$11:24 \checkmark$$

15) The cordial is mixed with water in the ratio of 1 : 3. How much Cordial is needed to make a mixture of 2L? (2 marks)

$$\begin{aligned} \text{Total parts} &= 1+3 \\ &= 4 \end{aligned}$$

$$2 \div 4 = 0.5 \text{ L} \checkmark$$

16) Write each of the following as a rate: (2 marks: 1, 1)

a) Write \$40 for 10 trees

$$\$4/\text{tree} \checkmark$$

b) 100 m in 10 seconds

$$10 \text{ m/s} \checkmark$$

17) A water tank of capacity 80 litres takes 18 minutes to fill. At what rate is the tank being filled? (1 mark)

$$4.4 \text{ L/min} \checkmark$$

18) A block of cheese costs \$13/kg. How much would 2.2 kg cost? (1 mark)

$$2.2 \times 13 = \$28.60 \checkmark$$

19) What type of quadrilateral am I? (1 mark)

I have 4 sides.

I have two pairs of equal sides.

I have two pairs of equal angles.

I have two pairs of parallel sides.

I am a Parallelogram \checkmark

~End of Test~