Name	
Form	
Teacher	

Maths Homework Booklet

Year 9 Spring 2

Set P,1,2,3

Topic	Score achieved	Sparx %
1. Pythagoras	/15	%
2. Congruent triangles	/9	%
3. Constructions	/9	%
4. Product of prime factors	/28	%
5. Lowest Common Multiple	/22	%
6. Highest Common Factor	/24	%

Question 1: For each right angle triangle below, work out x

(a)

3cm, x, 4cm

(b)

x, 8cm, 6cm

(c)

5cm, 12cm, x
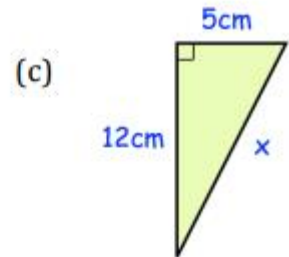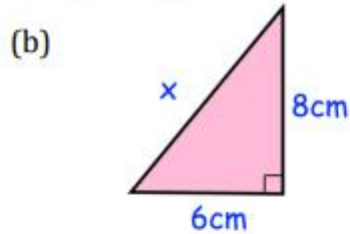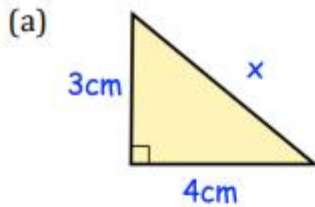
Question 2: Calculate x
Give each answer to 2 decimal places.

(a)

5cm, x, 8cm

(b)

x, 12cm, 30cm

(c)

9m, x, 2m

(d)

4.2cm, 3.5cm, x

(e)

22mm, 37mm, x

(f)

x, 8 yards, 11.5 yards
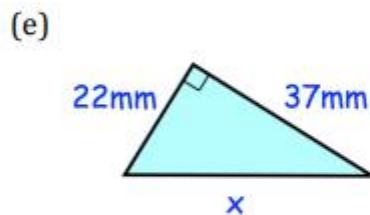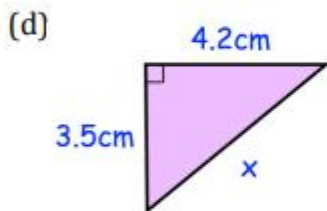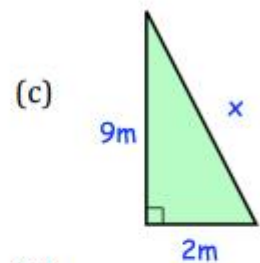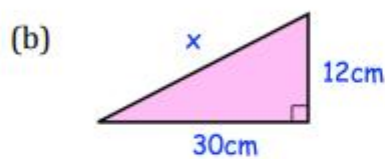
Question 3: Calculate x
Include suitable units and give each answer to 1 decimal place.
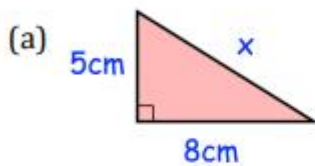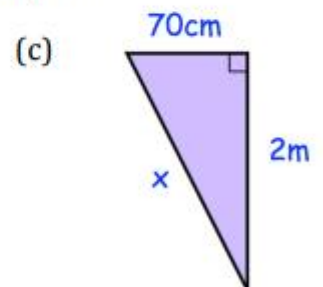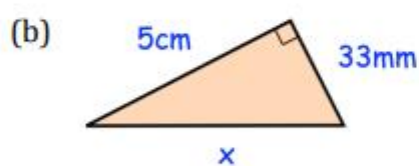
(a)

125cm, 1m, x

(b)

5cm, 33mm, x

(c)

70cm, 2m, x
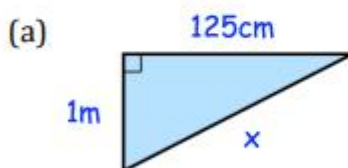
Question 4: For each right angle triangle below, work out x

(a)

13cm, x, 12cm

(b)
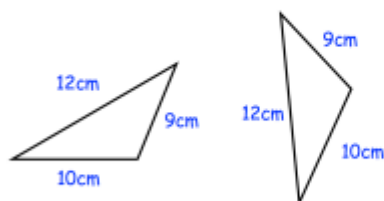
x, 6cm, 10cm

(c)

24cm, x, 25cm
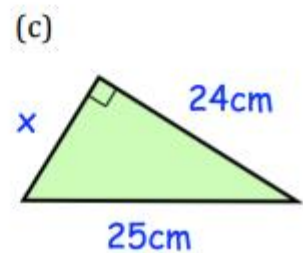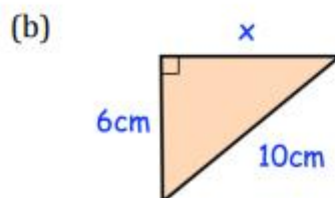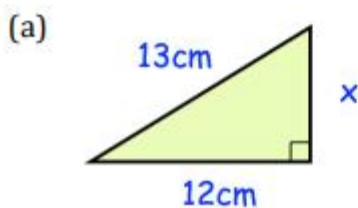
Sparx – Homework Answers

Week 2

Question 1: The following pairs of triangles are congruent, state the condition that shows they are congruent.

(a)

12cm
9cm
10cm
9cm
12cm
10cm

(b)

6cm
30°
7cm
6cm
30°
7cm

(c)

60°
18cm
55°
60°   55°
18cm

(d)

6cm
10cm
10cm
6cm

(e)

10cm
19°   140°
10cm
21°   19°

(f)

90cm   0.9m
57°
110cm
57°
1.1m

(g)

8.3cm
8.5cm
8cm
8.5cm
8cm
8.3cm

(h)

2cm   3cm
2cm
3cm

(i)

5cm
89°
43°
89°
5cm
48°
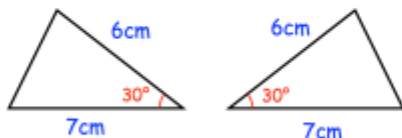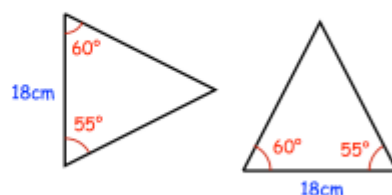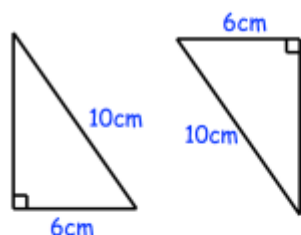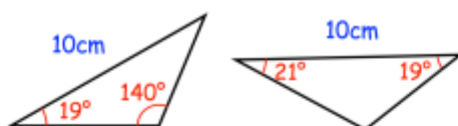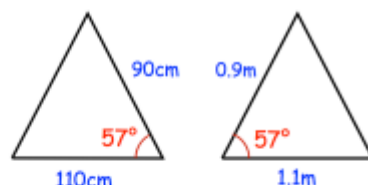
Sparx – Homework Answers

Question 1:   Draw a 8cm line and construct its perpendicular bisector

Question 2:   Draw a 6cm line and construct its perpendicular bisector

Question 3:   Draw the following angles and construct their angle bisectors.

(a) 60°   (b) 40°   (c) 90°   (d) 110°

(e) 150°   (f) 54°   (g) 220°

Week 3

Week 3

Sparx – Homework Answers

Question 1: Write each of these numbers as the product of their prime factors.
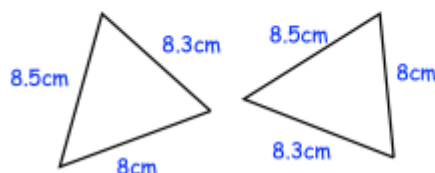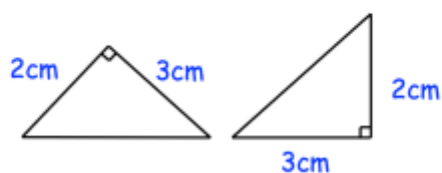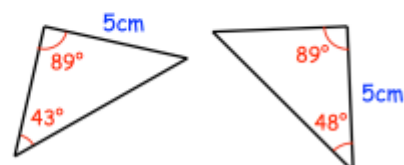
(a) 10   (b) 12   (c) 20   (d) 18   (e) 16   (f) 30   (g) 100

(h) 26   (i) 24   (j) 27   (k) 42   (l) 33   (m) 38   (n) 64

Question 2: Write each of these numbers as the product of their prime factors. Give your answers in index form.

(a) 36   (b) 40   (c) 28   (d) 48   (e) 80   (f) 200   (g) 75

(h) 32   (i) 105   (j) 81   (k) 52   (l) 242   (m) 108   (n) 500

Sparx – Homework Answers

Question 4: (a) Write down the first ten multiples of 5.
(b) Write down the first ten multiples of 8.
(c) Find the lowest common multiple (LCM) of 5 and 8.

Question 5: (a) Write down the first ten multiples of 6.
(b) Write down the first ten multiples of 8.
(c) Find the lowest common multiple (LCM) of 6 and 8.

Question 6: Find the lowest common multiple (LCM) of each of these pairs of numbers.

(a) 5 and 6

(b) 2 and 7

(c) 3 and 8

(d) 4 and 10

(e) 9 and 4

(f) 6 and 7

(g) 6 and 8

(h) 9 and 12

(i) 15 and 40

(j) 12 and 20

(k) 13 and 4

(l) 18 and 6

(m) 25 and 35

(n) 22 and 33

(o) 16 and 24

(p) 20 and 28

Sparx – Homework Answers

Question 6:   Find the highest common factor (HCF) of each of these pairs of numbers.

(a) 4 and 14   (b) 6 and 9   (c) 9 and 21   (d) 8 and 12

(e) 6 and 15   (f) 10 and 17   (g) 30 and 45   (h) 40 and 60

(i) 28 and 63   (j) 24 and 36   (k) 16 and 28   (l) 18 and 45

(m) 150 and 200   (n) 12 and 54   (o) 90 and 270   (p) 39 and 65

Question 7:   Find the highest common factor (HCF) of each of these sets of numbers.

(a) 12, 6 and 15   (b) 27, 33 and 12   (c) 30, 15 and 25   (d) 8, 20 and 12

(e) 10, 25 and 13   (f) 12, 24 and 30   (g) 9, 36 and 45   (h) 100, 125 and 200

Sparx – Homework Answers