# **Year 5 Spring 1** Maths Activity Mat 1

## Section 1

Order the following numbers from smallest to largest:

**50050 15050 50105 15015 50015**

| | | | | |
|---|---|---|---|---|
| | | | | |

smallest largest

## Section 2

Five children have £23.09 altogether. Three have between £5 and £6, and 2 have between £3 and £4. How much could they each have?

## Section 3

Eric wants some pizzas cut into 60 pieces. Explain all the ways he could share some pizzas into 60 pieces.

## Section 4

Complete the mixed fractions and improper fractions so each pair is equivalent.

| | |
|---|---|
| $\frac{17}{\quad}$ | $3\frac{2}{\quad}$ |
| $\frac{13}{\quad}$ | $2\frac{1}{\quad}$ |
| $\frac{14}{\quad}$ | $3\frac{2}{\quad}$ |

## Section 5

Write the equivalent to the fractions and decimal fractions.

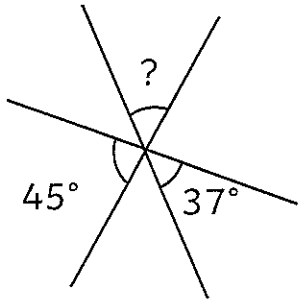
| | |
|---|---|
| | 0.35 |
| $\frac{7}{8}$ | |
| $\frac{4}{5}$ | |

## Section 6

Draw a rectilinear octagon with a perimeter of 52cm. (not to scale). Mark all the necessary measurements.

## Section 7

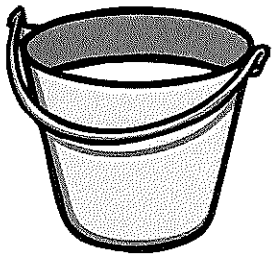
Calculate the missing angle:




*not to scale

## Section 8

Estimate the capacity a bucket of water in litres.



# **Year 5 Spring 1** Maths Activity Mat 1 - Answers

## Section 1

Order the following numbers from smallest to largest:

**50050 15050 50105 15015 50015**

| | | | | |
|---|---|---|---|---|
| **15 015** | **15 050** | **50 015** | **50 050** | **50 105** |

smallest largest

## Section 2

Five children have £23.09 altogether. Three have between £5 and £6, and 2 have between £3 and £4. How much could they each have?

**Five numbers with a total of £23.09.**

## Section 3

Eric wants some pizzas cut into 60 pieces. Explain all the ways he could share some pizzas into 60 pieces.

1 – 60, 2 – 30, 3 – 20, 4 – 15, 5 – 12, 6 – 10, 10 – 6, 12 – 5, 15 – 4, 20 – 3, 30 – 2, 60 – 1

## Section 4

Complete the mixed fractions and improper fractions so each pair is equivalent.

| | |
|---|---|
| $\frac{17}{5}$ | $3\frac{2}{5}$ |
| $\frac{13}{6}$ | $2\frac{1}{6}$ |
| $\frac{14}{4}$ | $3\frac{2}{4}$ |

## Section 5

Write the equivalent to the fractions and decimal fractions.

| | |
|---|---|
| $\frac{7}{20}$ | 0.35 |
| $\frac{7}{8}$ | 0.875 |
| $\frac{4}{5}$ | 0.8 |

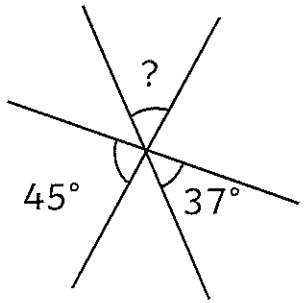
## Section 6

Draw a rectilinear octagon with a perimeter of 52cm. (not to scale). Mark all the necessary measurements.

Various answers

## Section 7

Calculate the missing angle:

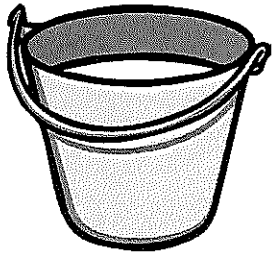



*not to scale

98°

## Section 8

Estimate the capacity a bucket of water in litres.



4 – 8 litres

# **Year 5 Spring 1** Maths Activity Mat 2

## Section 1

In the number 187 263 which digit represents 4 × 50?

## Section 2

The sum of two 2-digit numbers is the same as the difference between two other 2-digit numbers. What could be the four numbers?

## Section 3

Calculate:

0.01 × 1000 =

12.05 × 1000 =

591 ÷ 1000 =

3418 ÷ 1000 =

## Section 4

Use the < or > signs to compare these fractions:

$\frac{3}{10}$ ☐ $\frac{1}{2}$

$\frac{1}{3}$ ☐ $\frac{5}{12}$

$\frac{3}{4}$ ☐ $\frac{11}{16}$

## Section 5

Write the following decimals in words:

10.05 = _____

48.92 = _____

31.13 = _____

## Section 6

Draw and name a regular triangle and an irregular triangle.

## Section 7

A washing machine has 3 different wash cycles: Hot wash using 2.4 litres of water

Medium wash using two thirds of the hot wash.

Cold wash using half of the hot wash.

What percentage of water of the medium wash does the cold wash use?

## Section 8

Here is a table showing the number of children who had a hot or cold meal on a particular day.

Use the following information to complete the table. There are 87 children altogether, there are same number of children in 5A and 5C, two thirds of the children had hot meals, 1 more child in 5B than 5A, and 2 less children in 5B than 5C had a hot meal, 8 children in 5B had a cold meal.

| | 5A | 5B | 5C | Total |
|---|---|---|---|---|
| Hot | | | | |
| Cold | | | | |
| Total | | | | |

# **Year 5 Spring 1** Maths Activity Mat 2 Answers

## Section 1

In the number 187 263 which digit represents 4 × 50?

2 in the hundreds column as 4 × 50 = 200.

## Section 2

The sum of two 2-digit numbers is the same as the difference between two other 2-digit numbers. What could be the four numbers?

Open ended:
e.g. 21 + 23 = 95 - 51

## Section 3

Calculate:

| | |
|---|---|
| 0.01 × 1000 = | 10 |
| 12.05 × 1000 = | 12 050 |
| 591 ÷ 1000 = | 0.591 |
| 3418 ÷ 1000 = | 3.418 |

## Section 4

Use the < or > signs to compare these fractions:

$\frac{3}{10}$ < $\frac{1}{2}$

$\frac{1}{3}$ < $\frac{5}{12}$

$\frac{3}{4}$ > $\frac{11}{16}$

## Section 5

Write the following decimals in words:

10.05 = ten point zero five (or variations for 0)

48.92 = forty-eight point nine two

31.13 = thirty-one point one three

## Section 6

Draw and name a regular triangle and an irregular triangle.

Irregular: isosceles, right angle or scalene triangle (with drawing)

## Section 7

A washing machine has 3 different wash cycles: Hot wash using 2.4 litres of water

Medium wash using two thirds of the hot wash.

Cold wash using half of the hot wash.

What percentage of water of the medium wash does the cold wash use?

75%

## Section 8

Here is a table showing the number of children who had a hot or cold meal on a particular day.

Use the following information to complete the table. There are 87 children altogether, there are same number of children in 5A and 5C, two thirds of the children had hot meals, 1 more child in 5B than 5A, and 2 less children in 5B than 5C had a hot meal, 8 children in 5B had a cold meal.

| | 5A | 5B | 5C | Total |
|---|---|---|---|---|
| Hot | 18 | 19 | 21 | 58 |
| Cold | 12 | 8 | 9 | 29 |
| Total | 30 | 27 | 30 | 87 |

# **Year 5 Spring 1** Maths Activity Mat 3

## Section 1

Complete these linear sequences:

| | | | | |
|---|---|---|---|---|
| | | 3602 | 2602 | |
| 5668 | | 5868 | | |
| | 23 889 | | 43 889 | |
| 20 467 | | | 20 167 | |

## Section 2

Write a true statement and a false statement about prime numbers using the following:

2, 3, 5, 7, 11, 13, 17, 19

True: _____

_____

False: _____

_____

## Section 3

Calculate:

20 × 0.6 =

500 × 80 =

£0.40 × 40 =

0.9 × 0.11 =

## Section 4

Circle the fractions that are equivalent to the first fraction in each line:

| | | | | |
|---|---|---|---|---|
| $\frac{1}{2}$ | $\frac{3}{6}$ | $\frac{6}{16}$ | $\frac{10}{20}$ | $\frac{11}{24}$ |
| $\frac{2}{3}$ | $\frac{5}{6}$ | $\frac{8}{12}$ | $\frac{10}{15}$ | $\frac{11}{16}$ |
| $\frac{3}{5}$ | $\frac{5}{8}$ | $\frac{6}{10}$ | $\frac{9}{15}$ | $\frac{12}{20}$ |

## Section 5

A farmer measures a fence to be 64.5m long and says to one of the farm workers, "The fence is 70m to the nearest 10m." Explain why the farmer is wrong and why the mistake may have been made.

## Section 6

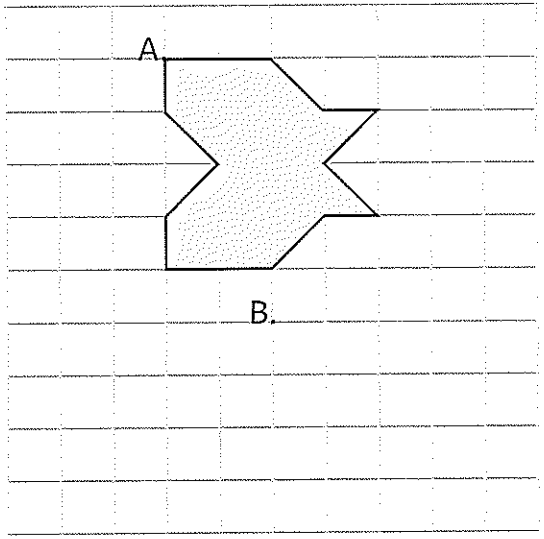
Jenny and some friends watch a trilogy of films back to back with a break of 15 minutes between each. The films are 108, 124 and 87 minutes long. They start at 09:15. What time will they finish?

## Section 7

Use a ruler to draw a rectangle with a perimeter of 10cm and an area of 6cm$^2$.

## Section 8

Translate this shape from point A to point B



# **Year 5 Spring 1** Maths Activity Mat 3 Answers

## Section 1

Complete these linear sequences:

| | | | | |
|---|---|---|---|---|
| 5602 | 4602 | 3602 | 2602 | 1602 |
| 5668 | 5768 | 5868 | 5968 | 6068 |
| 13 889 | 23 889 | 33 889 | 43 889 | 53 889 |
| 20 467 | 20 367 | 20 267 | 20 167 | 20 067 |

## Section 2

Write a true statement and a false statement about prime numbers using the following:

2, 3, 5, 7, 11, 13, 17, 19

Answers will vary

## Section 3

Calculate:

20 × 0.6 = 12

500 × 80 = 40 000

£0.40 × 40 = £16

0.9 × 0.11 = 0.1089

## Section 4

Circle the fractions that are equivalent to the first fraction in each line:

$\frac{1}{2}$ $\frac{3}{6}$ $\frac{6}{16}$ $\frac{10}{20}$ $\frac{11}{24}$

$\frac{2}{3}$ $\frac{5}{6}$ $\frac{8}{12}$ $\frac{10}{15}$ $\frac{11}{16}$

$\frac{3}{5}$ $\frac{5}{8}$ $\frac{6}{10}$ $\frac{9}{15}$ $\frac{12}{20}$

## Section 5

64.5 rounded to the nearest 10 takes into account the 4 in 64 and rounds down to 60m. The farmer may have been confused by the 5 in 64.5 and rounded up to 70. Other answers may be acceptable.

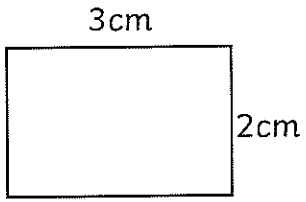
## Section 6

Jenny and some friends watch a trilogy of films back to back with a break of 15 minutes between each. The films are 108, 124 and 87 minutes long. They start at 09:15. What time will they finish?

15:04

## Section 7

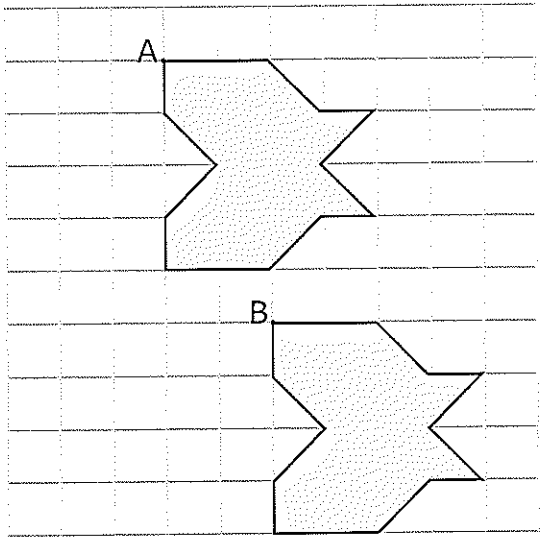
Use a ruler to draw a rectangle with a perimeter of 10cm and an area of 6cm$^2$.




Other answers may be acceptable.

## Section 8

Translate this shape from point A to point B



# **Year 5 Spring 1** Maths Activity Mat 4

## Section 1

Calculate:

8 + (-7) = ☐ -5 + 9 = ☐ 6 – (-4) = ☐

## Section 2

A High Speed train has 6 coaches of 74 seats and 2 coaches of 48 seats. There are 12 trains each weekday and 9 trains a day each weekend day from Sheffield to London. How many seats are there on all the trains from Sheffield to London each week rounded to the nearest 1000? ☐

## Section 3

Calculate:

$$\begin{array}{r} 58\_ \\ 1\_7 \\ +\ \_07 \\ \hline \_426 \end{array}$$

## Section 4

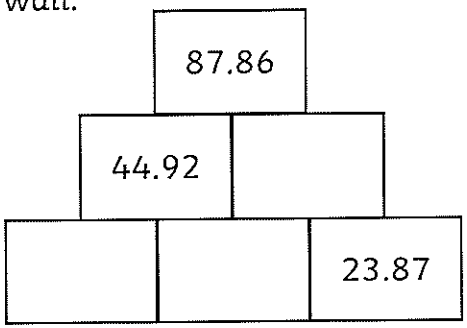
Order the following fractions from smallest to largest.

$\frac{4}{5}$ $\frac{21}{25}$ $\frac{11}{15}$ $\frac{23}{30}$

☐ ☐ ☐ ☐

## Section 5

Adjacent squares are added together to give the number above. Complete the number wall.



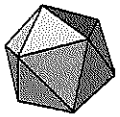

## Section 6

kg ≈ 2.2 lb,

How many grams in 1lb? Give your answer to the nearest gram. ☐

## Section 7

Write the name of these shapes.



☐ ☐

## Section 8

Children count the number of children who have a jacket potato each day.

| Week | Number of children who have a jacket potato |
|---|---|
| Monday | 13 |
| Tuesday | 24 |
| Wednesday | 19 |
| Thursday | 20 |
| Friday | 5 |

The kitchen bought 120 potatoes for the week. How many potatoes were left over? ☐

Why might the kitchen order only 100 potatoes the following week? ☐

# **Year 5 Spring 1** Maths Activity Mat 4 Answers

## Section 1

Calculate:

8 + (-7) = 1

-5 + 9 = 4

6 – (-4) = 10

## Section 2

A High Speed train has 6 coaches of 74 seats and 2 coaches of 48 seats. There are 12 trains each weekday and 9 trains a day each weekend day from Sheffield to London. How many seats are there on all the trains from Sheffield to London each week rounded to the nearest 1000?

42 000 seats

## Section 3

Calculate:

$$\begin{array}{r} 582 \\ 137 \\ +\ 707 \\ \hline 1426 \end{array}$$

## Section 4

Order the following fractions from smallest to largest.

$\frac{4}{5}$ $\frac{21}{25}$ $\frac{11}{15}$ $\frac{23}{30}$

| | | | |
|---|---|---|---|
| $\frac{11}{15}$ | $\frac{23}{30}$ | $\frac{4}{5}$ | $\frac{21}{25}$ |

## Section 5

Adjacent squares are added together to give the number above. Complete the number wall.

| | | |
|---|---|---|
| | 87.86 | |
| 44.92 | | 42.94 |
| 25.85 | 19.07 | 23.87 |

## Section 6

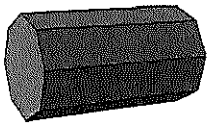
kg ≈ 2.2 lb,

How many grams in 1lb? Give your answer to the nearest gram.

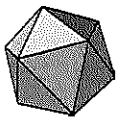
45g

## Section 7

Write the name of these shapes.



octagonal prism



icosahedron

## Section 8

Children count the number of children who have a jacket potato each day.

| Week | Number of children who have a jacket potato |
|---|---|
| Monday | 13 |
| Tuesday | 24 |
| Wednesday | 19 |
| Thursday | 20 |
| Friday | 5 |

The kitchen bought 120 potatoes for the week. How many potatoes were left over?

39

Why might the kitchen order only 100 potatoes the following week?

answers will vary

# **Year 5 Spring 1** Maths Activity Mat 5

## Section 1

Perform these calculations with Roman numerals without converting to numbers. Give the answers as a Roman numeral.

CCIX + CLXXVI =

CLXV – XCVI =

## Section 2

Write all the square numbers from 1 × 1 to 12 × 12.

What happens when you add consecutive square numbers?

## Section 3

Calculate:

$$\begin{array}{r} 6\_3 \\ \times \quad 2\_ \\ \hline 17\,444 \\ \hline 210 \\ \_4\overline{)29\_0} \end{array}$$

## Section 4

Calculate:

$\frac{1}{4} + \frac{5}{16} =$

$\frac{5}{6} - \frac{7}{12} =$

## Section 5

Write the following fractions as percentages:

$\frac{9}{20}$

$\frac{11}{25}$

$\frac{27}{50}$

## Section 6

A bottle of energy drink contains 380ml drink. Packs contain six bottles. A box must not contain more than 10l of drink. What is the most number of packs that a box can contain?

## Section 7

Explain why a triangle cannot have 2 obtuse angles.

## Section 8

| | |
|---|---|
| Lane swimming 1 | 07:00 |
| Parent and toddler | 10:00 |
| Lane swimming 2 | 11:30 |
| Adult lessons | 12:45 |
| Lane swimming 3 | 14:15 |
| Leisure swim | 15:45 |
| Child lessons | 17:00 |
| Leisure swim | 18:30 |
| Lane swimming 4 | 20:00 |
| Pool closes | 21:30 |

Here is a swiming pool timetable.

A swimmer swims all the lane swimming lessons in a day and swims 870 lengths. On average, how long does each length take?

The pool is open for the same time each day, in length of time, for how many days (to the nearest day) is the pool open each week?

# **Year 5 Spring 1** Maths Activity Mat 5 Answers

## Section 1

Perform these calculations with Roman numerals without converting to numbers. Give the answers as a Roman numeral.

CCIX + CLXXVI = CCCLXXXV

CLXV – XCVI = LXIX

## Section 2

Write all the square numbers from 1 × 1 to 12 × 12.

1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144

What happens when you add consecutive square numbers?

all odd, difference increases by 4 each time.

## Section 3

Calculate:

$$\begin{array}{r} 623 \\ \times \quad 28 \\ \hline 17\,444 \\ \hline 210 \\ 14\overline{)2940} \end{array}$$

## Section 4

Calculate:

$\frac{1}{4} + \frac{5}{16} = \frac{9}{16}$

$\frac{5}{6} - \frac{7}{12} = \frac{3}{12}$ or $\frac{1}{4}$

## Section 5

Write the following fractions as percentages:

$\frac{9}{20}$ 45%

$\frac{11}{25}$ 44%

$\frac{27}{50}$ 54%

## Section 6

A bottle of energy drink contains 380ml drink. Packs contain six bottles. A box must not contain more than 10l of drink. What is the most number of packs that a box can contain?

4 packs is 9.12 litres

## Section 7

Explain why a triangle cannot have 2 obtuse angles.

If a triangle is attempted with 2 obtuse angles the 2 sides will not meet so the triangle cannot be drawn.

## Section 8

| | |
|---|---|
| Lane swimming 1 | 07:00 |
| Parent and toddler | 10:00 |
| Lane swimming 2 | 11:30 |
| Adult lessons | 12:45 |
| Lane swimming 3 | 14:15 |
| Leisure swim | 15:45 |
| Child lessons | 17:00 |
| Leisure swim | 18:30 |
| Lane swimming 4 | 20:00 |
| Pool closes | 21:30 |

Here is a swiming pool timetable.

A swimmer swims all the lane swimming lessons in a day and swims 870 lengths. On average, how long does each length take?

30 seconds

The pool is open for the same time each day, in length of time, for how many days (to the nearest day) is the pool open each week?

4 days (101.5 hours)

# **Year 5 Spring 1** Maths Activity Mat 6

## Section 1

I am a three-digit odd number.

I have two less ones than hundreds, and both digits are prime numbers.

My tens digit is a square number and a cube number.

The sum of my digits is 13.

What am I?

## Section 2

Write the factor pairs of 42.

Write the common factors of 15 and 45.

## Section 3

Five children collect all the used pencils from classrooms. There are 132. They share those and another 13 packets of 12 pencils between 8 classrooms. How many pencils does each class receive?

A supermarket wants to rearrange some shelves of baked beans. There are 90 tins on the shelves, and 8 boxes of 48 tins are brought out from the stock room. The tins are shared equally over 6 shelves. How many tins will be on each shelf?

## Section 4

Calculate:

$\frac{8}{3} \times 5 =$

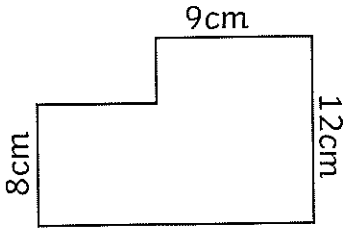
## Section 5

Ring the correct percentage to match the following fractions:

| | | | |
|---|---|---|---|
| $\frac{1}{8}$ | 12.5% | 80% | 15% |
| $\frac{3}{4}$ | 30% | 75% | 40% |
| $\frac{2}{5}$ | 65% | 80% | 62.5% |

## Section 6

What is the area of this composite rectilinear shape?

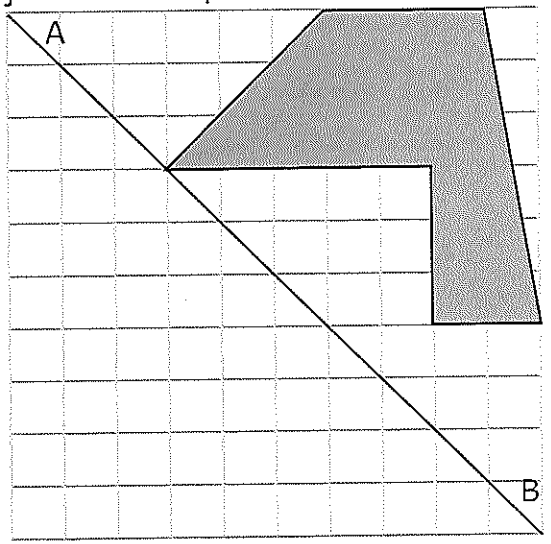



## Section 7

Draw an angle of 245°

## Section 8

Reflect this shape about the line AB



# **Year 5 Spring 1** Maths Activity Mat 6 Answers

## Section 1

I am a three-digit odd number.

I have two less ones than hundreds, and both digits are prime numbers.

My tens digit is a square number and a cube number.

The sum of my digits is 13.

What am I?

715

## Section 2

Write the factor pairs of 42.

1 × 42, 2 × 21, 3 × 14, 6 × 7

Write the common factors of 15 and 45.

1, 3, 5, 15

## Section 3

Five children collect all the used pencils from classrooms. There are 132. They share those and another 13 packets of 12 pencils between 8 classrooms. How many pencils does each class receive?

36, 79

A supermarket wants to rearrange some shelves of baked beans. There are 90 tins on the shelves, and 8 boxes of 48 tins are brought out from the stock room. The tins are shared equally over 6 shelves. How many tins will be on each shelf?

## Section 4

Calculate:

$\frac{8}{3} \times 5 =$ $13\ \frac{1}{3}$

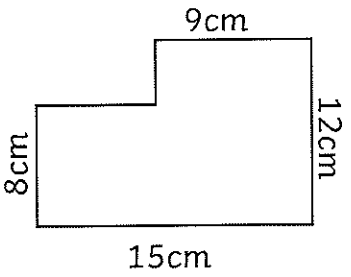
## Section 5

Ring the correct percentage to match the following fractions:

| | | | |
|---|---|---|---|
| $\frac{1}{8}$ | 12.5% | 80% | 15% |
| $\frac{3}{4}$ | 30% | 75% | 40% |
| $\frac{5}{8}$ | 65% | 80% | 62.5% |

## Section 6

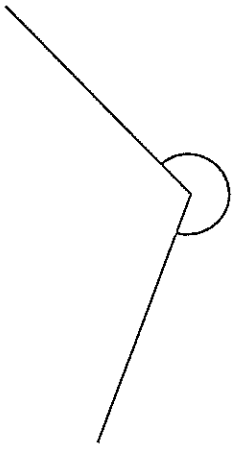
What is the area of this composite rectilinear shape?




156cm²

## Section 7

Draw an angle of 245°



## Section 8

Reflect this shape about the line AB