



Colin and Coco's Daily Maths Workout



Workout 5.13

Answers

Keep-uppI (Term 6)



KPIs for Term 5

Calculate the area of rectangles

Draw given angles, and measure them, in degrees ($^{\circ}$)

Interpret line graphs

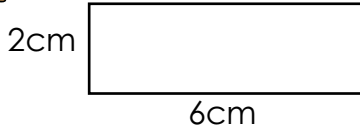


Area of Rectangles Workout

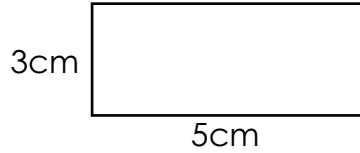
Workout A

Calculate the area of the rectangles:

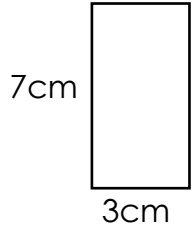
Complete the table for rectangles:



Area = 12cm^2



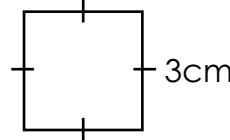
Area = 15cm^2



Area = 21cm^2



Area = 36cm^2



Area = 9cm^2

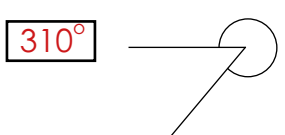
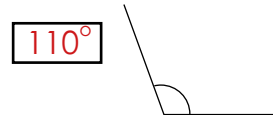
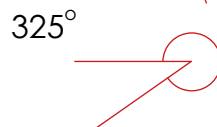
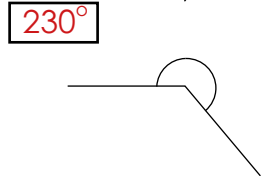
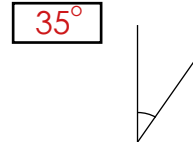
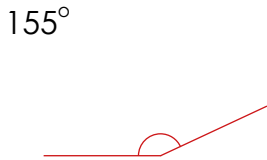
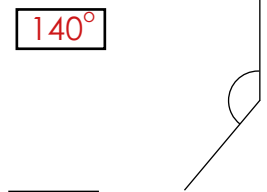
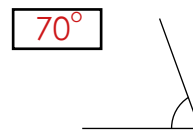
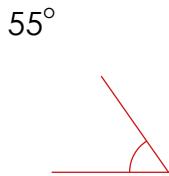
Length	Width	Area
8cm	7cm	56cm^2
6cm	12cm	72cm^2
1.5m	8m	12m^2
7cm	9cm	63cm^2
12cm	12cm	144cm^2
12m	11m	132m^2

Draw and Measure Angles Workout

Workout B

Draw and mark an angle measuring:

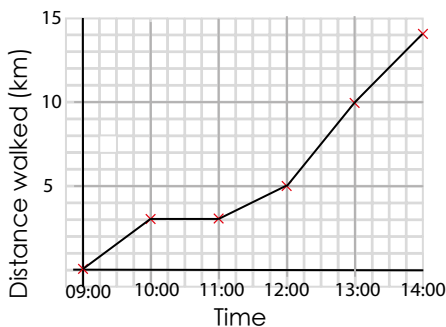
Measure the angles:



Line Graphs Workout

Workout C

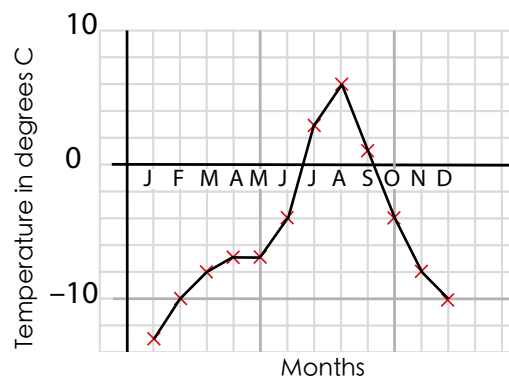
Distance Bill walked



- How far did Bill walk in the first hour?
- During which hour did Bill stop?
- During which hour did Bill walk the furthest?
- At what time had Bill walked 12km?
- How far did Bill walk in total?

3km, 10:00 - 11:00, 12:00 - 13:00, 13:30, 14km

Temperature across the year



- What was the temperature in February?
- What was the temperature in April?
- What was the difference between the temperature in July and November?
- In which months was the temperature -4°C ?
- Between July and August was the temperature rising or falling?

-10°C , -7°C , 11°C , June & Oct, Rising



Angles Game

Workout D

You need: (print off the cards)

Blank piece of paper for each player.

Card Set for each player.

To play:

Each player starts with a 5cm horizontal line at the bottom of their page.

Each card set is shuffled and placed face down.

Each player picks one card and draws that angle from the end of their line.

Each line a player draws must be 5cm long.

Each player picks a second card and draws that angle from the end of their new line.

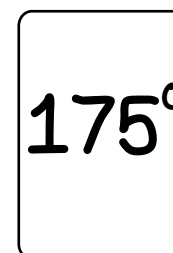
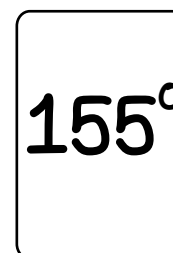
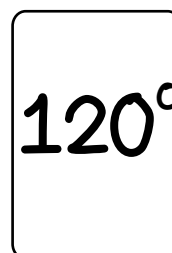
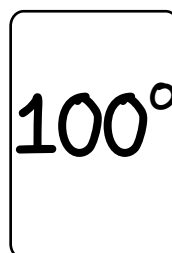
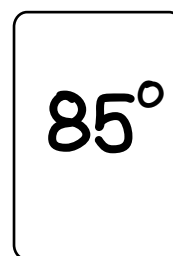
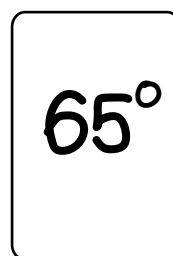
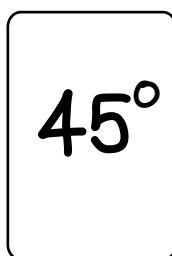
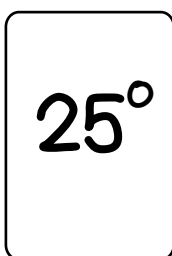
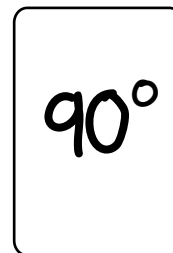
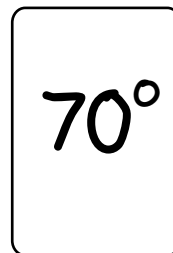
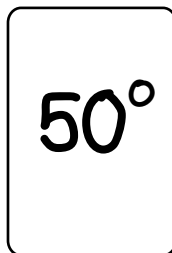
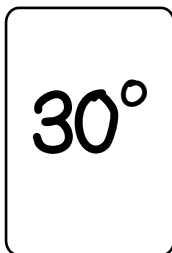
Players keep picking cards to zig zag up the page.

To win:

The player who reaches the top of the page first wins one point.

The first player to get 10 points wins the Game.

Card Set:



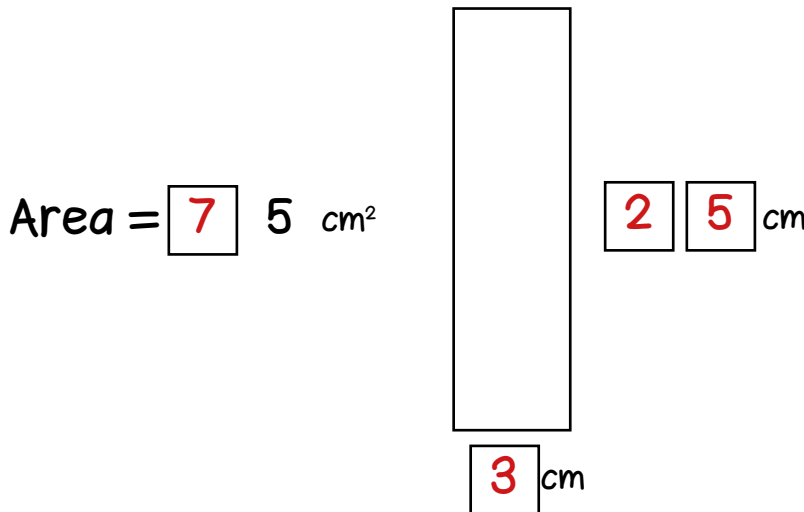
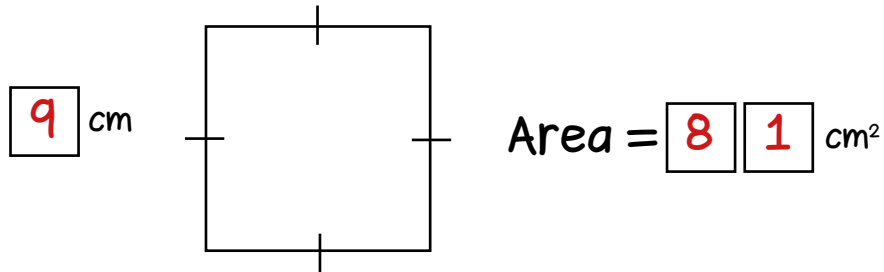


Area of Rectangles Workout

Put digits in the empty boxes to make the diagrams correct.

Complete them in several different ways, where possible.

Possible Solution



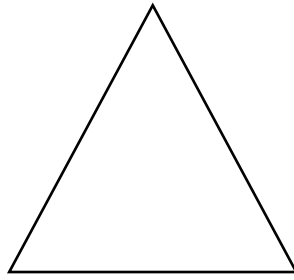
Are there any boxes that it is impossible to put a digit in? Why?

Are there any boxes that could have any of the digits in them?

Now try to complete both calculations together using the digits 1, 2, 3, 4, 5, 6, 7, 8 and 9 once each.

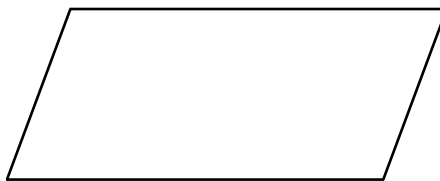


Angle Investigation



- Draw a triangle with 3 acute angles.
- Measure all the angles.
- Find the sum of the angles.
- Repeat for other triangles with 3 acute angles.
- What do you notice?

Investigate for triangles with obtuse angles.



- Draw a parallelogram.
- Measure all the angles.
- Find the sum of the angles.
- Repeat for other parallelograms.
- What do you notice?

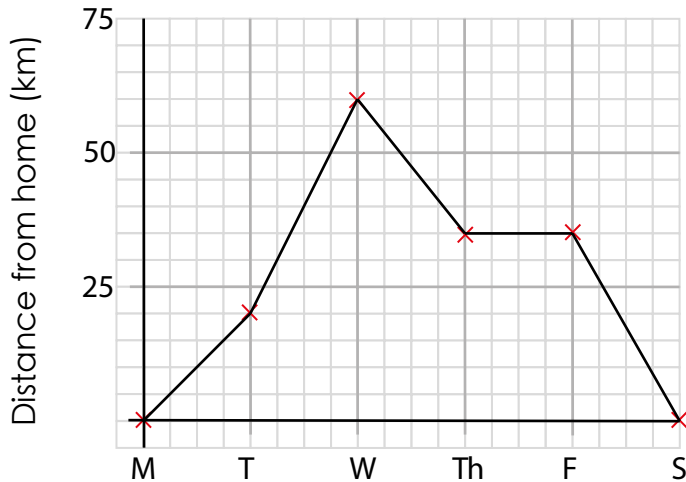
Investigate for other quadrilaterals.

Investigate for other polygons.



Word Problem Workout Area and Line Graphs

1. Graph to show the distance Colin is from home on his cycle trip at the start of each day.



- How far from home is Colin at the start of Tuesday?
- On which day does Colin have a rest?
- During which day does Colin cycle the furthest?
- During which days is Colin 40km from home?

20km, Thursday, Tuesday, Tues & Wed

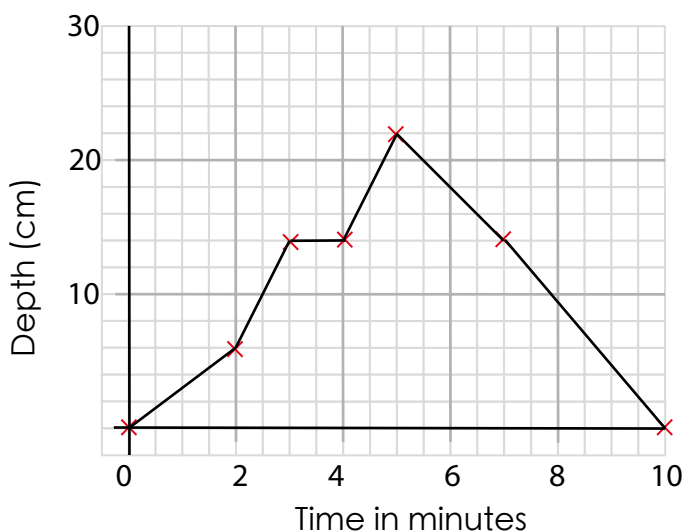
2. Colin has 14 two metre fence panels. He fixes them in a line or at right angles to each other. What is the largest area he can enclose?

$6m \times 8m = 48 \text{ sq m}$

3. Coco is creating a square patio. She has a delivery of 90 square slabs. Each slab has 60cm long. What is the area of the biggest patio Coco can create?

29,160 sq cm or
29.16 sq m

4. Graph to show the depth of water in a bath over 10 minutes.



- How deep is the water after 2 minutes?
- How much deeper is the water after 5 minutes than it is after 3 minutes?
- What happens between 3 and 4 minutes?
- At what numbers of minutes is the water 18cm deep?

6cm, 8cm, tap turned off, 4 and a half & 6 minutes

Create your own word problems involving area and line graphs.



Matching Workout

Match the rectangles with the area
Fill in the missing buddies.

Rectangles and their dimensions:

- Rectangle 1: 6cm (width), 7cm (height)
- Rectangle 2: 7cm (width), 4cm (height)
- Rectangle 3: 9cm (width), 8cm (height)
- Rectangle 4: 9cm (width), 7cm (height)
- Rectangle 5: 6cm (width), 9cm (height)
- Rectangle 6: 6cm (width), 6cm (height)
- Rectangle 7: 8cm (width), 7cm (height)
- Rectangle 8: 9cm (width), 7cm (height)

Area list (from top to bottom):

- 36 cm² (red)
- 28 cm²
- 42 cm²
- 54 cm²
- 72 cm²
- 63 cm²
- 56 cm²

Connections (red lines):

- Rectangle 1 (6x7) connects to 42 cm²
- Rectangle 2 (7x4) connects to 28 cm²
- Rectangle 3 (9x8) connects to 72 cm²
- Rectangle 4 (9x7) connects to 63 cm²
- Rectangle 5 (6x9) connects to 54 cm²
- Rectangle 6 (6x6) connects to 36 cm²
- Rectangle 7 (8x7) connects to 56 cm²
- Rectangle 8 (9x7) connects to 63 cm²

Match the angles.
Fill in the missing value and draw the missing angle.

Angle list (from top to bottom):

- 60°
- 35°
- 55°
- 105°
- 300° (red)
- 125°
- 235°

Connections (red lines):

- Small acute angle connects to 35°
- Right angle connects to 90° (not in list)
- Obtuse angle connects to 105°
- Large reflex angle connects to 235°
- Small acute angle connects to 60°
- Obtuse angle connects to 125°
- Large reflex angle connects to 300°

Create your own Matching Workouts.