

11+ Maths Practice Paper

Year 5 · Intermediate

Lesson 7.1: Angle properties

Read this with your child:

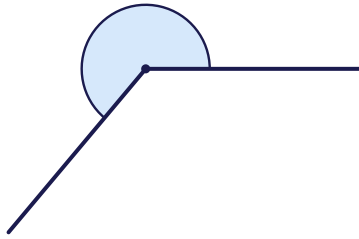
1. This paper has **24 questions** in two parts. Work through them in order. The questions get harder as you go.
2. **Part 1** is multiple choice. Choose **one** answer, A, B, C, D or E, and mark it on the separate answer sheet by drawing a firm line through the box next to its letter. If you change your mind, rub the line out completely and mark your new answer.
3. **Part 2** asks you to write your answer. Write it in the boxes on the answer sheet, **one digit in each box**, starting from the left.
4. If a question is hard, leave it and come back to it at the end.
5. You may use rough paper for working out. You may **not** use a calculator.
6. Suggested time: **30 minutes**.

The answer sheet is after the questions. The answers, with a short explanation of each, are at the back for a parent to mark with.

These are original practice questions written by Elite Learners in the style of 11+ entrance tests. They are not produced by, or connected with, GL Assessment or Cambridge University Press & Assessment (CEM).

Example

What kind of angle is this?



- A** reflex angle
- B** acute angle
- C** obtuse angle
- D** right angle
- E** straight angle

Answer: A The curve goes the long way round, more than a straight line: a reflex angle.

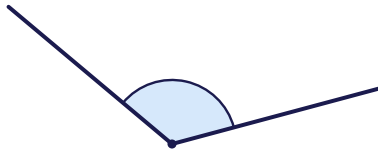
The answer, A, has already been marked on your answer sheet.

Now turn over and start Part 1.

Part 1: Multiple choice

1

What kind of angle is this?



- A obtuse angle
- B acute angle
- C right angle
- D reflex angle
- E straight angle

2

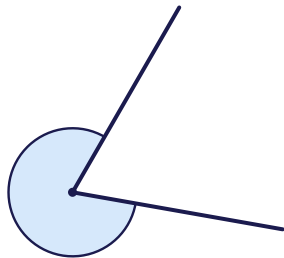
Which of these is a reflex angle?

- A 175°
- B 215°
- C 95°
- D 180°
- E 360°

3

Look at the curve carefully.

What kind of angle is this?



- A acute angle
- B obtuse angle
- C right angle
- D reflex angle
- E straight angle

4

How many degrees are there in three quarters of a full turn?

A 270°

B 300°

C 180°

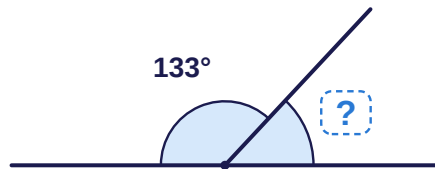
D 75°

E 240°

5

The two angles are on a straight line.

Find the missing angle.



A 57°

B 133°

C 43°

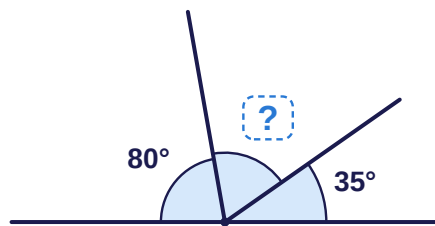
D 227°

E 47°

6

The three angles are on a straight line.

Find the missing angle.



A 115°

B 75°

C 65°

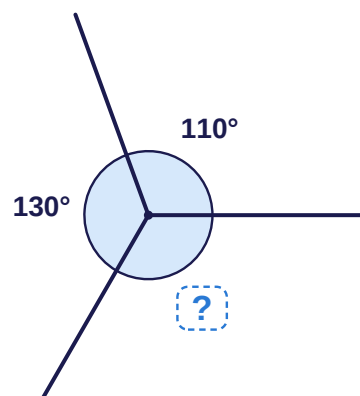
D 245°

E 55°

7

Three angles meet at a point.

Find the missing angle.



A 130°

B 60°

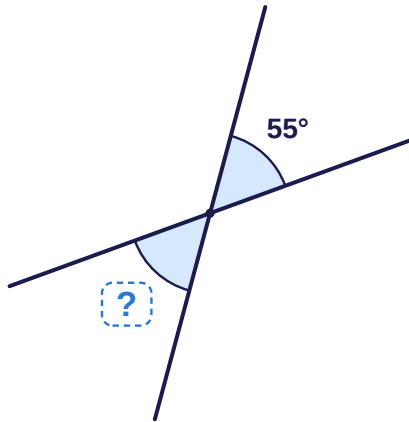
C 240°

D 120°

E 110°

8

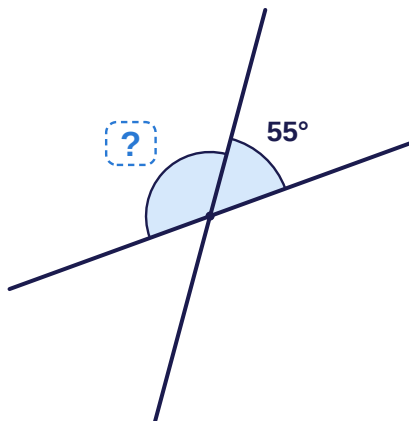
Two straight lines cross.
Find the missing angle.



- A** 125° **B** 55° **C** 35° **D** 305° **E** 65°

9

Two straight lines cross.
Find the missing angle.



- A** 55° **B** 135° **C** 125° **D** 305° **E** 35°

10

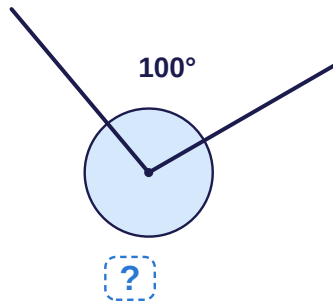
What is the best estimate for the size of this angle?



- A** about 20° **B** about 160° **C** about 90° **D** about 200° **E** about 300°

11

The angle between the arms is 100° . How big is the missing angle, the other way round?



- A** 80° **B** 260° **C** 100° **D** 160° **E** 200°

12

Which of these angles is reflex?



Angle A

A Angle A



Angle B

B Angle B



Angle C

C Angle C



Angle D

D Angle D



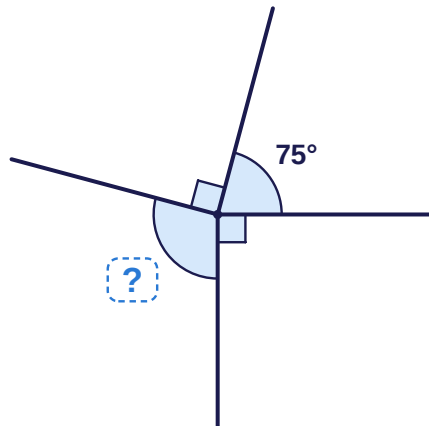
Angle E

E Angle E

13

Four angles meet at a point.

Find the missing angle.



- A** 75° **B** 115° **C** 105° **D** 255° **E** 95°

14

Two straight lines cross. One of the four angles they make is 70° .

Which list shows all four angles?

- A $70^\circ, 110^\circ, 70^\circ, 110^\circ$
- B $70^\circ, 70^\circ, 70^\circ, 70^\circ$
- C $70^\circ, 20^\circ, 70^\circ, 20^\circ$
- D $70^\circ, 110^\circ, 110^\circ, 70^\circ$
- E $70^\circ, 290^\circ, 70^\circ, 290^\circ$

15

The minute hand of a clock turns from the 12 to the 3.

How many degrees does it turn?

- A 3°
- B 30°
- C 45°
- D 90°
- E 180°

16

An angle is 35° less than a straight angle.

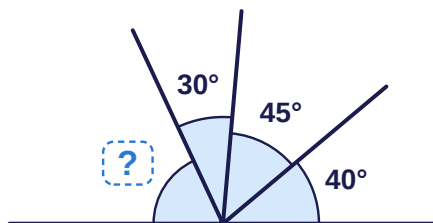
What kind of angle is it?

- A acute angle
- B right angle
- C obtuse angle
- D reflex angle
- E straight angle

17

The four angles are on a straight line.

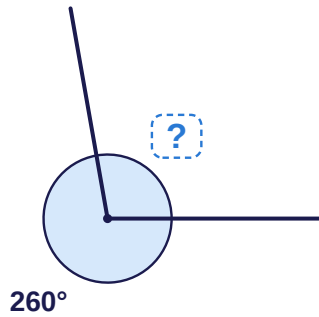
Find the missing angle.



- A 115°
- B 75°
- C 35°
- D 245°
- E 65°

18

The reflex angle is 260° . How big is the missing angle?

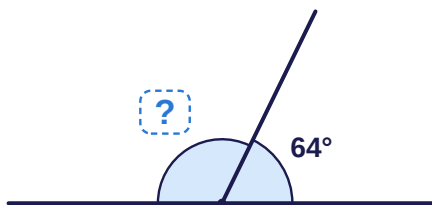
A 80° B 260° C 200° D 110° E 100°

Part 2: Write your answer

19

The two angles are on a straight line.

How many degrees is the missing angle?

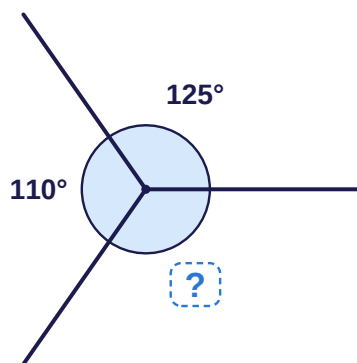


Write your answer in the boxes on the answer sheet, one digit in each box.

20

Three angles meet at a point.

How many degrees is the missing angle?

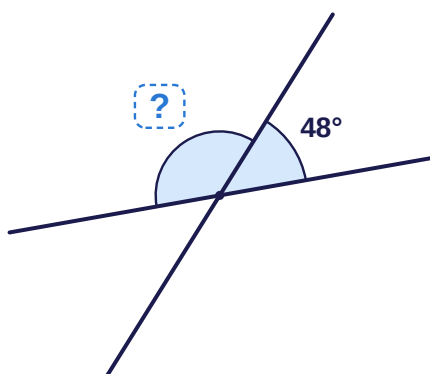


Write your answer in the boxes on the answer sheet, one digit in each box.

21

Two straight lines cross.

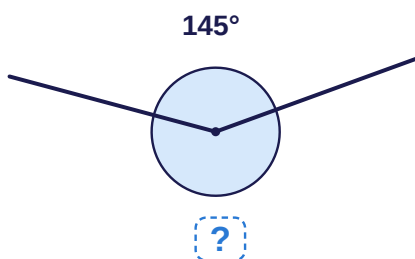
How many degrees is the missing angle?



Write your answer in the boxes on the answer sheet, one digit in each box.

22

The angle between the arms is 145° . How many degrees is the missing reflex angle, the other way round?

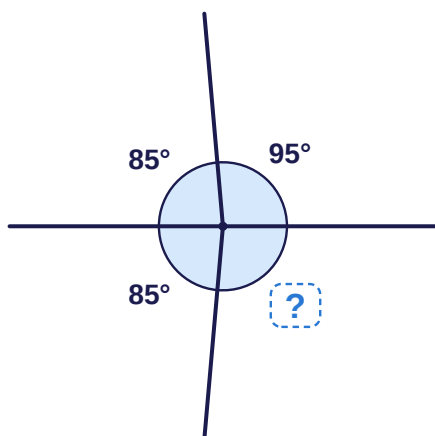


Write your answer in the boxes on the answer sheet, one digit in each box.

23

Four angles meet at a point.

How many degrees is the missing angle?



Write your answer in the boxes on the answer sheet, one digit in each box.

24

How many degrees are there in two full turns?

Write your answer in the boxes on the answer sheet, one digit in each box.

Answer sheet

11+ Maths Practice Paper · Year 5 · Lesson 7.1: Angle properties

Name

Draw a firm line through the box next to your answer, like the example.

Part 1: Multiple choice

Ex	A ☒	B ☐	C ☐	D ☐	E ☐
1	A ☐	B ☐	C ☐	D ☐	E ☐
2	A ☐	B ☐	C ☐	D ☐	E ☐
3	A ☐	B ☐	C ☐	D ☐	E ☐
4	A ☐	B ☐	C ☐	D ☐	E ☐
5	A ☐	B ☐	C ☐	D ☐	E ☐
6	A ☐	B ☐	C ☐	D ☐	E ☐
7	A ☐	B ☐	C ☐	D ☐	E ☐
8	A ☐	B ☐	C ☐	D ☐	E ☐
9	A ☐	B ☐	C ☐	D ☐	E ☐
10	A ☐	B ☐	C ☐	D ☐	E ☐
11	A ☐	B ☐	C ☐	D ☐	E ☐
12	A ☐	B ☐	C ☐	D ☐	E ☐
13	A ☐	B ☐	C ☐	D ☐	E ☐
14	A ☐	B ☐	C ☐	D ☐	E ☐
15	A ☐	B ☐	C ☐	D ☐	E ☐
16	A ☐	B ☐	C ☐	D ☐	E ☐
17	A ☐	B ☐	C ☐	D ☐	E ☐
18	A ☐	B ☐	C ☐	D ☐	E ☐

Part 2: Write your answer, one digit in each box

19			
20			
21			
22			
23			
24			

Answers

For a parent to mark with. One mark for each question: the paper is out of 24. Talk through any your child got wrong, using the explanation.

Q	Answer	How to get it
1	A obtuse angle	It is bigger than a right angle but smaller than a straight line: obtuse.
2	B 215°	A reflex angle is more than 180° and less than 360°. Only 215° is.
3	D reflex angle	The arms look close together, but the curve goes the long way round. That angle is more than 180°: reflex.
4	A 270°	A quarter turn is 90°, so three quarters is $3 \times 90 = 270^\circ$.
5	E 47°	$180 - 133 = 47^\circ$.
6	C 65°	Add the angles you know: $35 + 80 = 115$. Then $180 - 115 = 65^\circ$.
7	D 120°	Angles around a point add up to 360°: $110 + 130 = 240$, and $360 - 240 = 120^\circ$.
8	B 55°	The ? is opposite the 55° angle. Vertically opposite angles are equal: 55°.
9	C 125°	The ? is next to the 55° angle, on a straight line: $180 - 55 = 125^\circ$.
10	B about 160°	It is bigger than a right angle and only a little smaller than a straight line (180°): about 160°.
11	B 260°	The two angles go all the way round the point: $360 - 100 = 260^\circ$.
12	C Angle C	Angle C goes past a straight line, so it is more than 180°: reflex. Angle B is close to a straight line, but it has not reached it.
13	C 105°	The squares are right angles. $75 + 90 + 90 = 255$, and $360 - 255 = 105^\circ$.
14	A 70°, 110°, 70°, 110°	Going round the point, the angles take turns: 70°, then $180 - 70 = 110^\circ$, then 70° (opposite the first), then 110°.
15	D 90°	From the 12 to the 3 is a quarter of the way round: a right angle, 90°.
16	C obtuse angle	A straight angle is 180°: $180 - 35 = 145^\circ$, which is between 90° and 180°: obtuse.
17	E 65°	Add the angles you know: $40 + 45 + 30 = 115$. Then $180 - 115 = 65^\circ$.
18	E 100°	The two angles go all the way round: $360 - 260 = 100^\circ$.
19	116	$180 - 64 = 116$.
20	125	$125 + 110 = 235$, and $360 - 235 = 125$.
21	132	The ? is next to the 48° angle, on a straight line: $180 - 48 = 132$.
22	215	$360 - 145 = 215$.
23	95	Add the angles you know: $95 + 85 + 85 = 265$. Then $360 - 265 = 95$.
24	720	One full turn is 360°: $2 \times 360 = 720$.

Score: out of 24