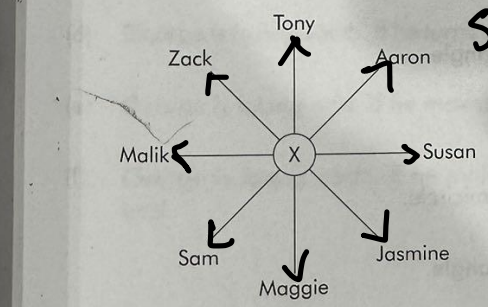
Fill in each blank with the correct answer.

13. A 1/4-turn equals 1 right angle.
14. A half-turn equals 180.
15. A 3/4-turn equals 270°.
16. A complete turn equals 4 right angles.
17. 2/4 of a complete turn is 180°. ⇒ 2/4 = 1/2
18. 1/4 of a complete turn is 90°.

19. Which direction is each child from X? → start from "X"



N
W E
S

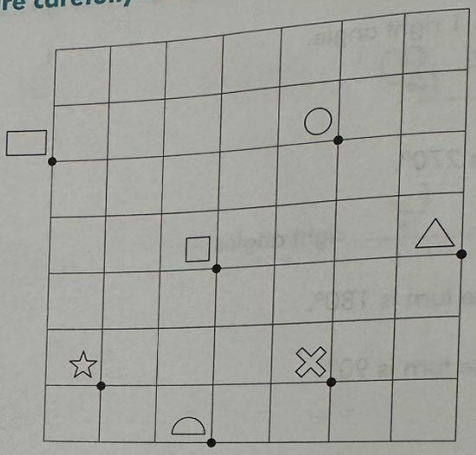
Tony: S N
Aaron: WS NE
Susan: W E
Jasmine: SW SE
Maggie: n S
Sam: he SW
Malik: e W
Zack: nw NW

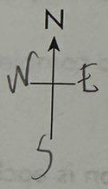
1) REDUCE FRACTION 2/4 = 1/2

2) How to find the direction.
   a) initial b) target
   departure (SOME DIRECTION)
   arrival

Look at each picture carefully and fill in each blank with the correct answ

20.





(a) The circle is _____ of the triangle.

(b) The semicircle is _____ of the star.

(c) The square is _____ of the triangle.

(d) The cross is _____ of the star.

(e) The square is _____ of the semicircle.

(f) The circle is _____ of the rectangle.

(g) The triangle is _____ of the cross.

(h) The star is _____ of the circle.

△ similar to that of P19

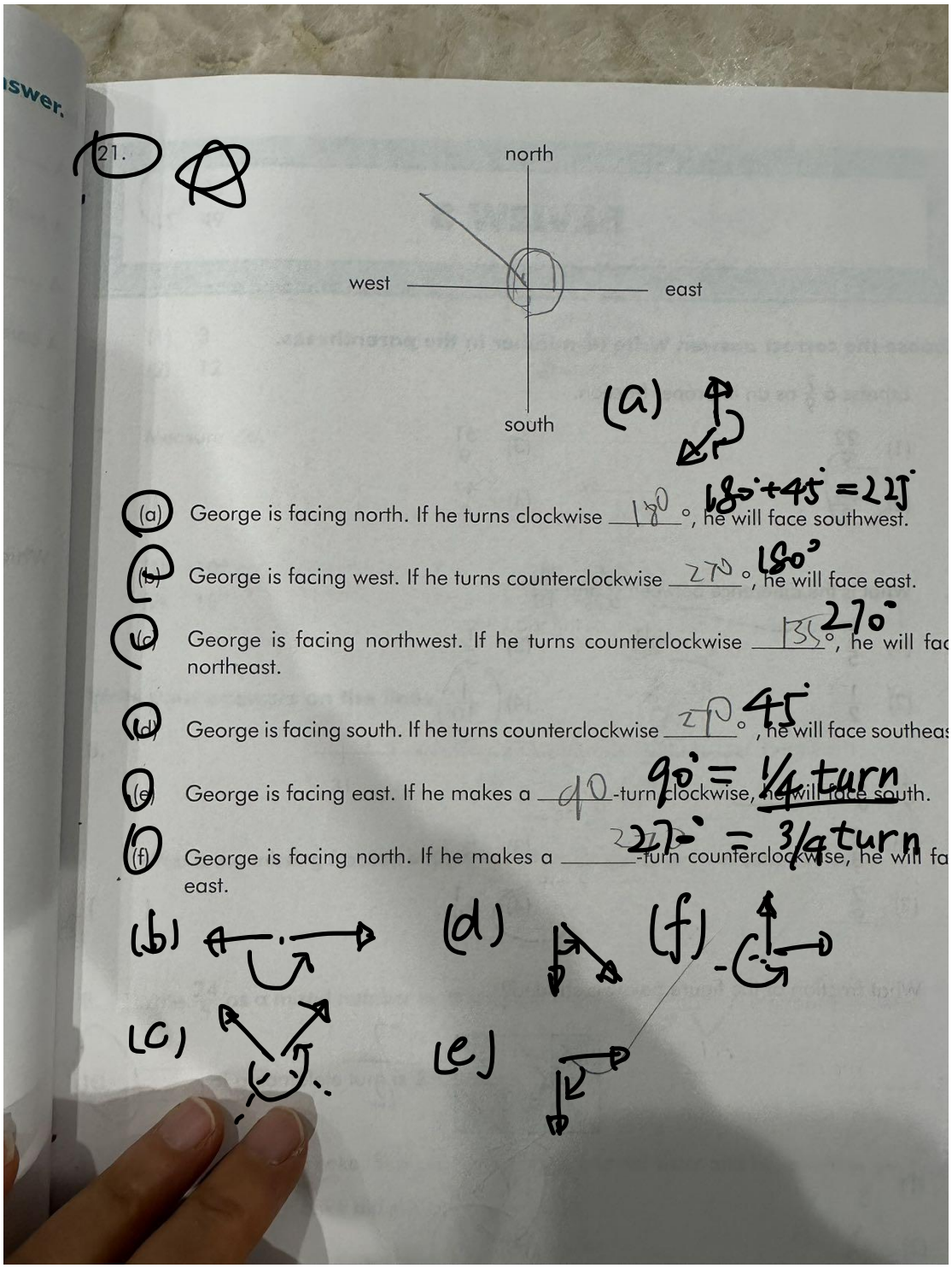
① METHOD:

1) DRAW A COMPASS

2) find the reference object

3) see it as your present location

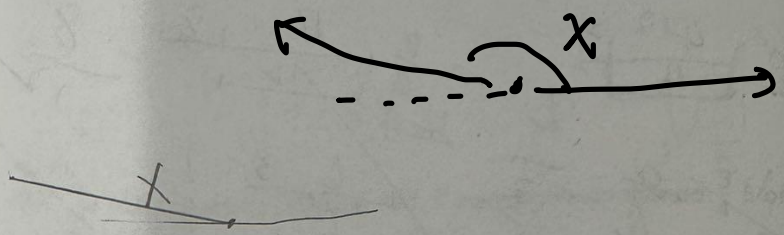
then just move ↑



(2) METHOD: 1) find the initial direction
2) & 3) Clockwise or
or 3) & 2) Counterclockwise
4) rotate and find the angle.

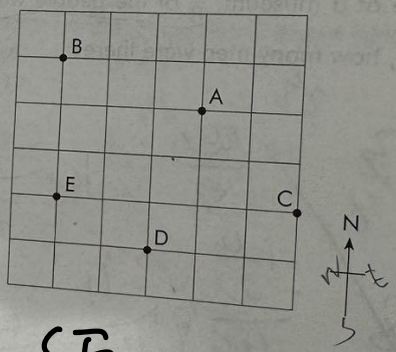
PAY ATTENTION TO THE UNIT!

19. Draw an angle of 168° and label it as x.



Look at the picture and fill in each blank with the correct answer.

20.



(a) Letter A is NW of letter B. SE

(b) Letter B is S of letter E. N

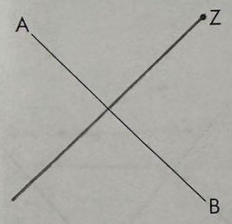
(c) Letter C is NW of letter D. SE

(d) Letter E is SW of letter D. NW

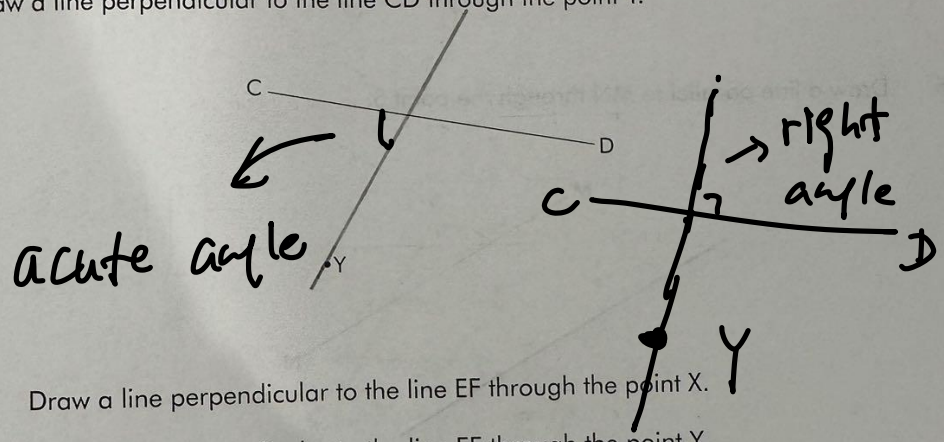
(e) Letter E is W of letter C. W

HAVE A TRY BY USING METHOD (1)

1. Draw a line perpendicular to the line AB through the point Z.

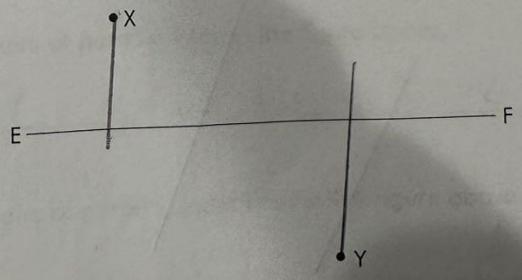


2. Draw a line perpendicular to the line CD through the point Y.



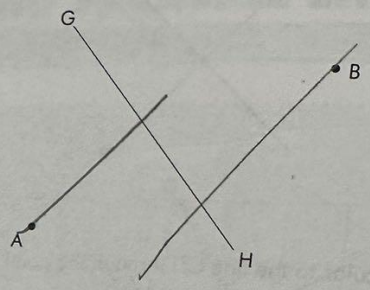
3. (a) Draw a line perpendicular to the line EF through the point X.

(b) Draw a line perpendicular to the line EF through the point Y.

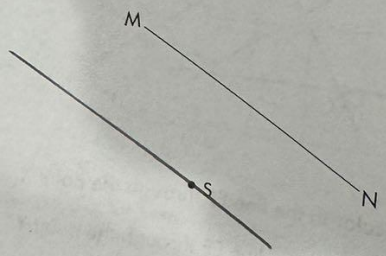


4. (a) Draw a line perpendicular to line GH through the point A.

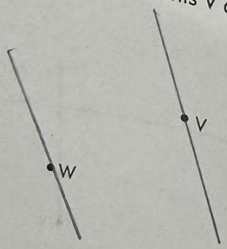
(b) Draw a line perpendicular to line GH through the point B.



5. Draw a line parallel to MN through the point S.

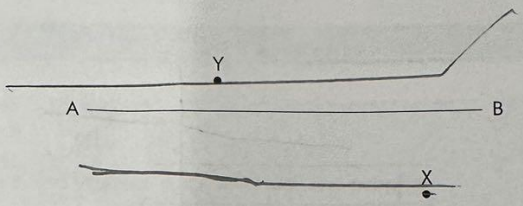


6. Draw a pair of parallel lines through the points V and W.

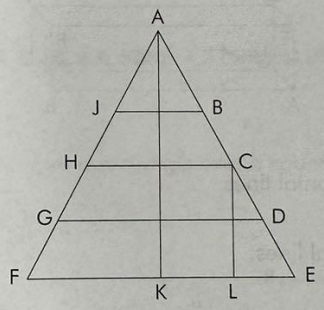


7. (a) Draw a line parallel to AB through the point X.

(b) Draw a line parallel to AB through the point Y.



8.



(a) Identify all pairs of parallel lines in the figure above.

JB // HC // GD // FE; KA // LC

(b) Identify all pairs of perpendicular lines in the figure above.

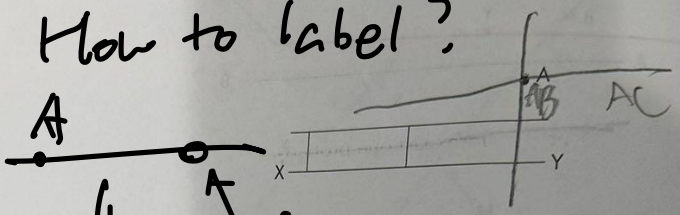
AK ⊥ JB; AK ⊥ HC; AK ⊥ GD; AK ⊥ FE;
CL ⊥ JB; CL ⊥ HC; CL ⊥ GD; CL ⊥ FE

9. The figure below shows a section of a brick wall.

(a) Draw a vertical line through A to meet XY and label it as AB.

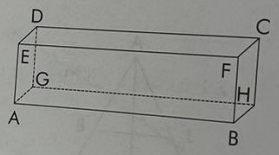
(b) Draw a horizontal line through A and label it as AC.

How to label?



Line find another point "B".

10. The figure below shows a rectangular fish tank.



(a) Identify all the horizontal lines. dcef

(b) Identify all the vertical lines. AB gh

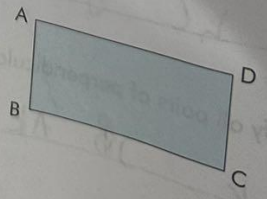
11. The figure on the right shows a box.

(a) Line AB is a ✓ line.

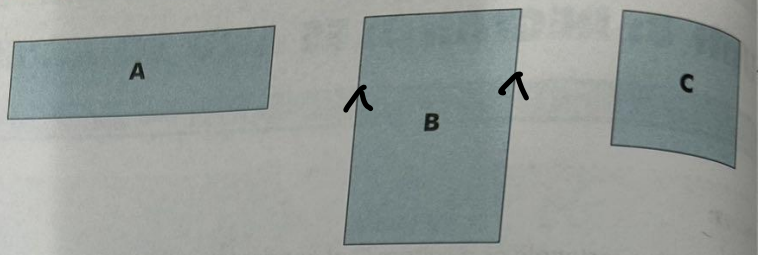
(b) Line BC is a H line.

(c) Line DC is a V line.

(d) Line AD is a H line.



Look at the figures below.



1. (a) Is Figure A a rectangle or a square?

R

(b) State two properties of Figure A.

one side is longer than the other

it is horizontal

2. (a) Is Figure B a rectangle or a square?

(b) State two properties of Figure B.

one side is longer than the other

it is vertical

'parallel'

'vertical'

3. (a) Is Figure C a rectangle or a square?

S

(b) State two properties of Figure C.

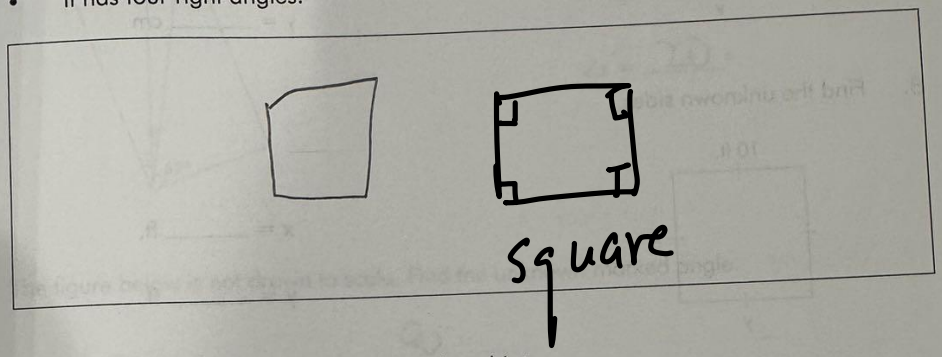
they have the same length

Singap

Leve

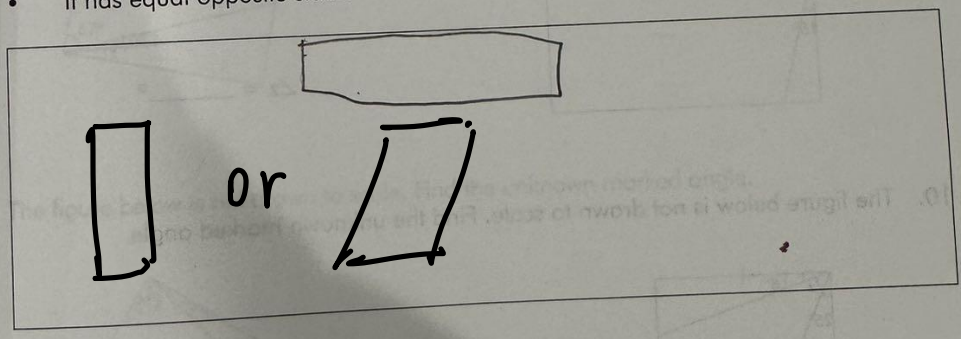
4. Draw Figure X in the box based on the given hints.

- It has four equal sides.
- It has two pairs of parallel lines.
- It has four right angles.

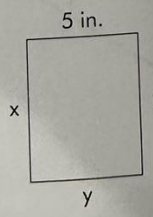


5. Draw Figure Z in the box based on the given hints.

- It has four sides.
- It has two pairs of parallel lines.
- It has equal opposite sides.

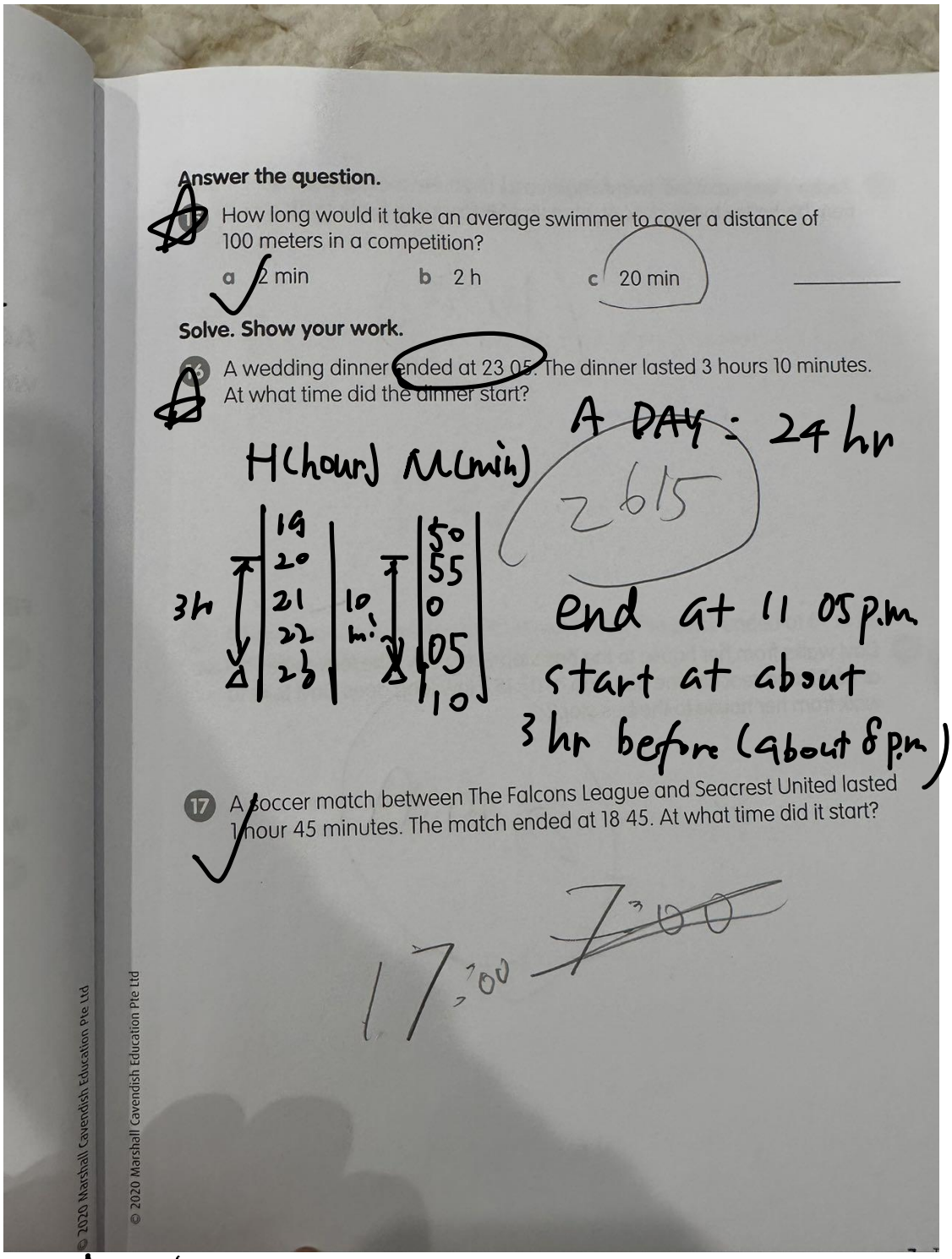


6. Find the unknown sides.



x = 12 in.

y = 5 in.



Answer the question.

16 How long would it take an average swimmer to cover a distance of 100 meters in a competition?

a 2 min b 2 h c 20 min

Solve. Show your work.

A wedding dinner ended at 23 05. The dinner lasted 3 hours 10 minutes. At what time did the dinner start?

A DAY : 24 hr

2615

H(hour) M(min)

3h	19	10 min	50
	20		55
	21		0
	22		05
	23		10

end at 11 05 p.m.
start at about
3 hr before (about 8 p.m.)

17 A soccer match between The Falcons League and Seacrest United lasted 1 hour 45 minutes. The match ended at 18 45. At what time did it start?

17:00 ~~7:00~~

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△ HOW TO ESTIMATE.

☆ find a similar example in real world.

100 meters ⇒ about the length of a standard football field.

if walk ⇒ 2 ~ 3 min

18 Zachary arrived at the swimming club at 15 20. He took 42 minutes to travel from his house to the club. At what time did he leave his house?

time table:

1602

? Leave

42min on the way

15 20 arrive

42min = 20min + 22min

42min before 15 20 is ___?

19 Davi walks from her house to the bus stop every day. She leaves her house at 06 52 and reaches the bus stop at 07 15. How long does Davi take to walk from her house to the bus stop?

06 52

↕ 8min

07 00

↕ 15min

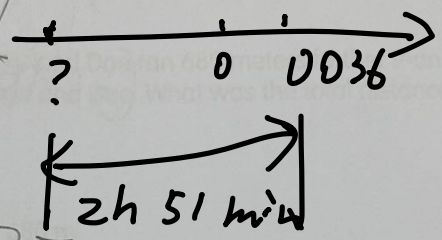
07 15

23 min

(8+15)min = 23min

20 A movie lasted 2 hours 51 minutes and ended at 00 36 the next day. At what time did the movie start?

the 1st day | the 2nd day



1:27

21 A New Year party started at 22 30 on Friday. The party ended at 01 15 the next day. How long did the party last?

HAVE A TRY!

2hr 45 min

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TRY!

22 Jordan left her house at 18 00 to go to a musical. She took 50 minutes to reach the theater. She was 10 minutes early. At what time did the musical start?

6:40

23 Anna celebrated her birthday on 12 October at 17 45. Her brother celebrated his birthday 18 hours later. Give the date and time of her brother's birthday celebration.

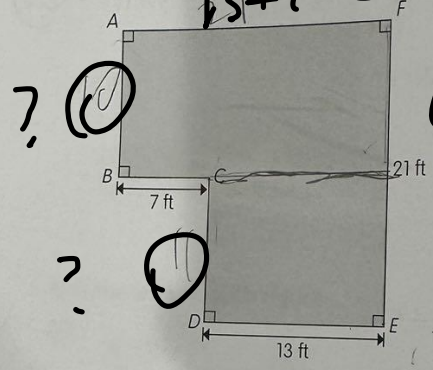
Solve. Show your work.

9 Xavier wants to put up a fence round the piece of land as shown. Find the perimeter of the piece of land to find the length of fencing material he needs.

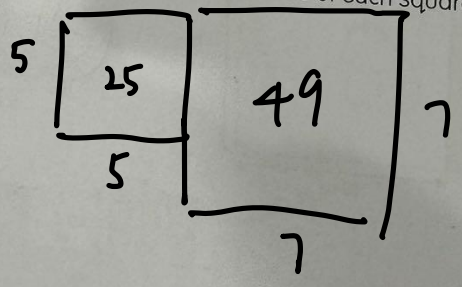
13+7=20 ft

21+10+7+1(+13+21)

(20+21)x2=82 ft



10 A figure made up of two distinct squares has an area of 74 square centimeters. What are the lengths of a side of each square?



Name: _____ Date: _____

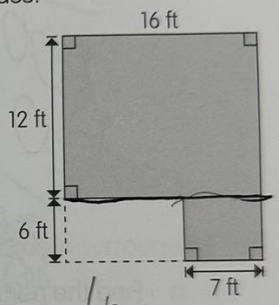
Chapter 6

Extra Practice and Homework
Area and Perimeter

Activity 3 Real-World Problems: Area and Perimeter

Fill in each blank.

1 A rectangular field has a rectangular patch of grass removed from one corner. Find the area of the field that is covered with grass.



Length of big rectangle = 6 + 12

= 18 ft

Area of big rectangle = 16 × 18

= 288 ft²

Length of unshaded rectangle = 16 − 7

= 9 ft

Area of unshaded rectangle = 6 × 9

= 54 ft²

Area of shaded part = Area of big rectangle − Area of unshaded rectangle

= 288 − 54

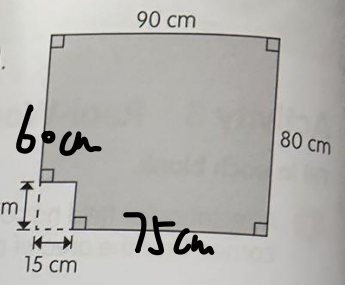
= 234

The area of the field that is covered with grass is 234 square feet.

Solve. Show your work.

2 Amir has a piece of cardboard measuring 90 centimeters by 80 centimeters. She cuts out a small rectangular piece measuring 15 centimeters by 20 centimeters.

a Find the area of the remaining cardboard.



20 × 15 = 100 + 200 = 300

90 × 90 = 7200 − 300 = 6900

b Find the perimeter of the remaining cardboard.

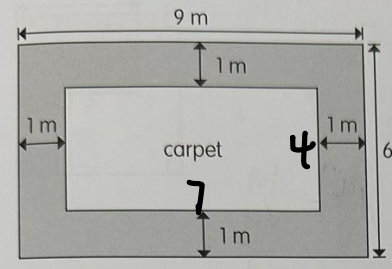
40 + 20 + 20 = 4

× 30

15 + 15 = 30

Extra Practice

3 A carpet is laid on a rectangular floor of length 9 meters and breadth 6 meters. This leaves a margin of width 1 meter round the carpet. Find the area of the carpet.



7X5 35

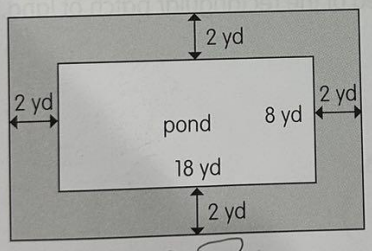
L: 9m × 6m = 54m²

S: 7m × 4m = 28m²

54m² − 28m² = 26m²

TRY /

4 A rectangular pond of length 18 yards and breadth 8 yards is surrounded by a path 2 yards wide as shown. Find the area of the path.



2 2

18
X 8
144

12
22
X 12
44
22
264
− 144
120

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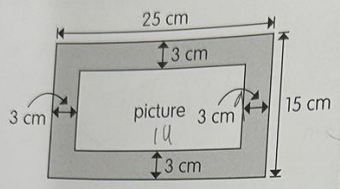
TRY

5 A picture is mounted on a frame measuring 25 centimeters by 15 centimeters. It has a border of 3 centimeters round it. Find the area and perimeter of the picture.



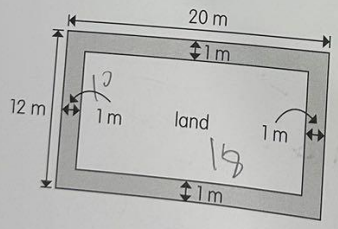
19 x9 171

18 +38 56 P

A=171

TRY.

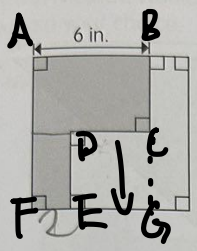
6 Ana makes a path of width 1 meter round her rectangular patch of land. The length and breadth of the outer boundary of the path are shown in the figure. Find the perimeter and area of the rectangular patch of land.



36 +2 P=54

18 x10 00 18 A=180

7 The perimeter of the shaded part of a square is 28 inches. Find the area of the square.



perimeter = 28 in

$= AB + BC + CD + DE + EF + FA$

$AB = 6$ in

$CD + EF = GE + EF = AB = 6$ in

$BC + DE = BC + CG = BG = FA$

$\Rightarrow 2FA + 2AB = 28$ ($AB = 6$) $FA = 8$ Area?

8 Two windows each measuring 8 feet by 4 feet are cut out from a wall. The wall has an area of 180 square feet. What is the area of the remaining wall?

180

$-32 \times 2 = 64$

148

$180 - 64 = 116$

WHY? TWO WINDOWS!!!

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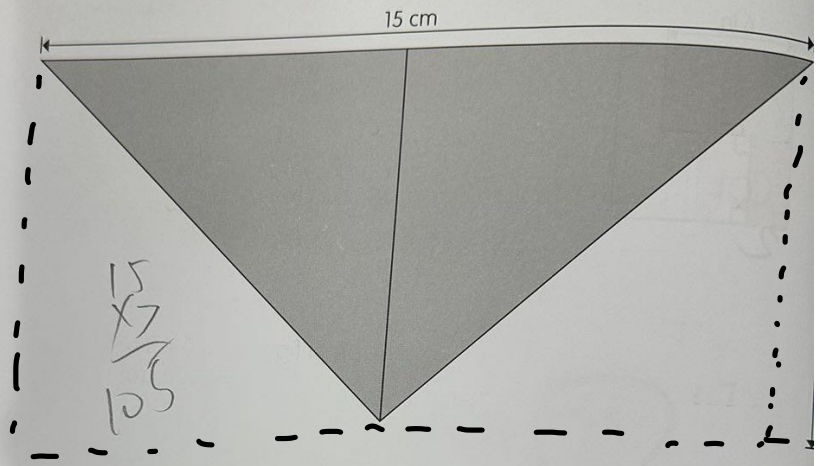
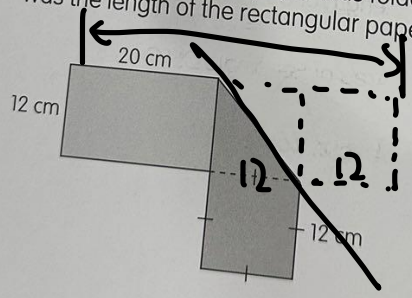
9 A rectangular piece of paper is folded to form the figure shown. Find the
of the rectangular piece of paper.



15
x7
105

10 A rectangular piece of paper was folded to form the shape shown below. W
was the length of the rectangular paper before it was folded?



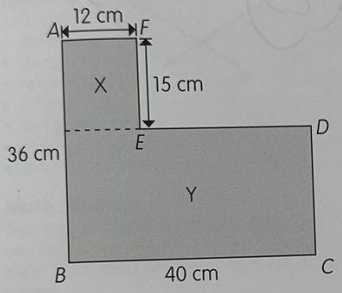
20+12+12=44

Name: _____ Date: _____

Mathematical Habit 6 Use precise mathematical language

Which method would you use to find the area of the figure shown? Explain your choice.

▶ **Method 1**



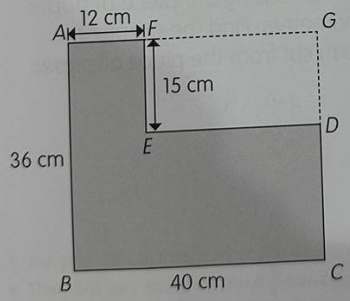
Area of X = 12 × 15
= 180 cm²

Length of *CD* = 36 − 15
= 21 cm

Area of Y = 40 × 21
= 840 cm²

Area of figure = 180 + 840
= 1,020 cm²

▶ **Method 2**



Area of Rectangle *ABCG* = 40 × 36
= 1,440 cm²

Length of *DE* = 40 − 12
= 28 cm

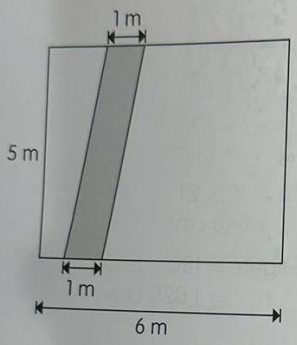
Area of Rectangle *DEFG* = 28 × 15
= 420 cm²

Area of figure = 1,440 − 420
= 1,020 cm²

PUT ON YOUR THINKING CAP!

Mathematical Habit 6 **Use precise mathematical language**

Ms. Lee covers the floor of her living room, which measures 6 meters by 5 meters, with white and grey carpet as shown. Find the area of the floor covered with white carpet.

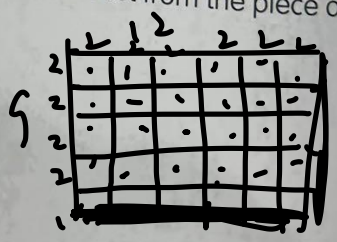


4x5=20

5×5=25

Mathematical Habit 6 **Use precise mathematical language**

Sara wants to cut 2-centimeter squares from a rectangular piece of paper of length 12 centimeters and breadth 9 centimeters. Find the greatest number of 2-centimeter squares that she can cut from the piece of paper.



4×6=24

Name: Richard Date:

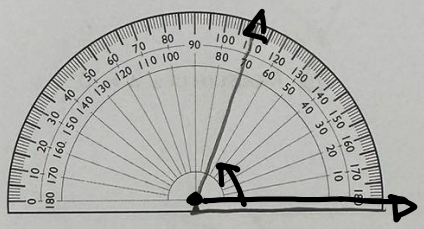
Chapter 7

Extra Practice and Homework
Angles and Line Segments

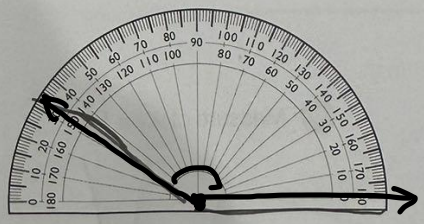
Activity 2 Drawing Angles to 180°

Use the given protractor to draw an angle with each given angle measure.

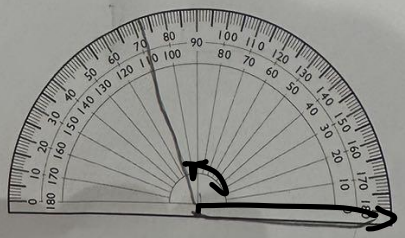
1. 70°



2. 147°



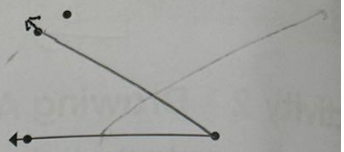
3. 108°



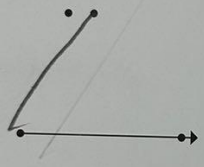
Estimate and join the marked end point of each ray to one of the dots to form an angle with the given measure. Then, measure and label each angl

4 Measure of $\angle p = 105°$

5 Measure of $\angle h = 32°$

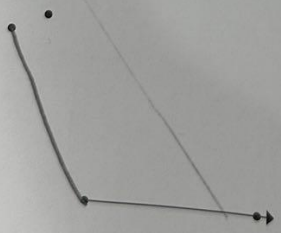


6 Measure of $\angle m = 70°$

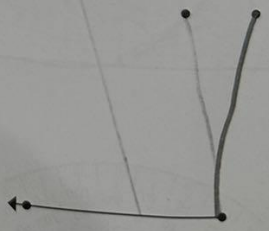


7 Measure of $\angle w = 10°$

8 Measure of $\angle e = 116°$

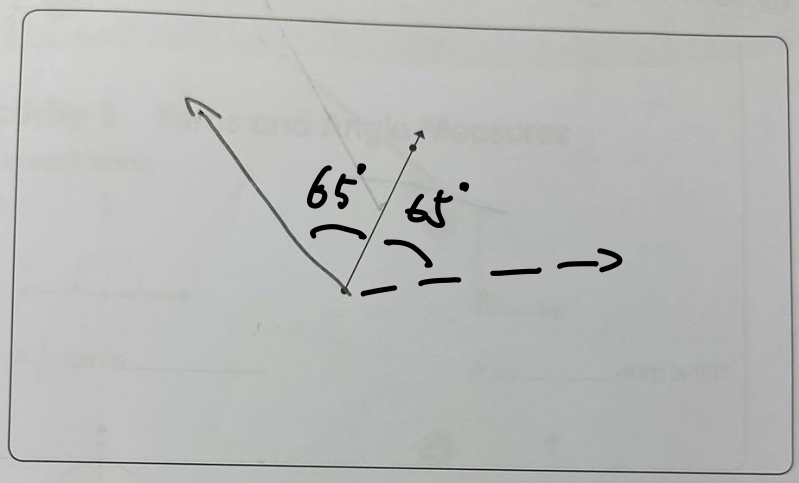


9 Measure of $\angle z = 98°$

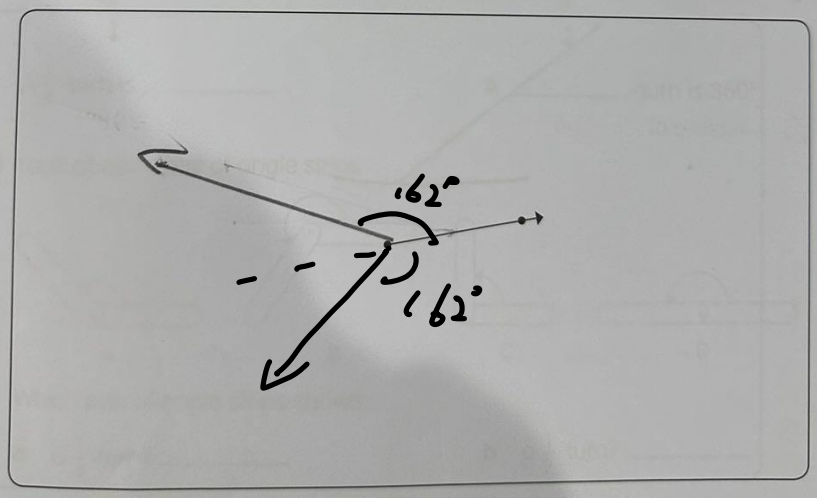


Draw an angle with each given angle measure using the given rays. Then, mark and label each angle.

10 65°



11 162°



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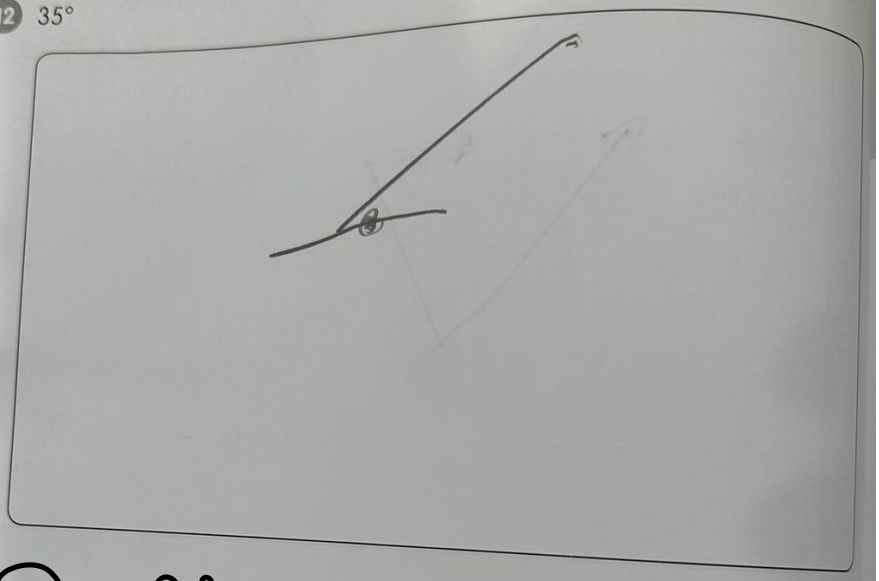
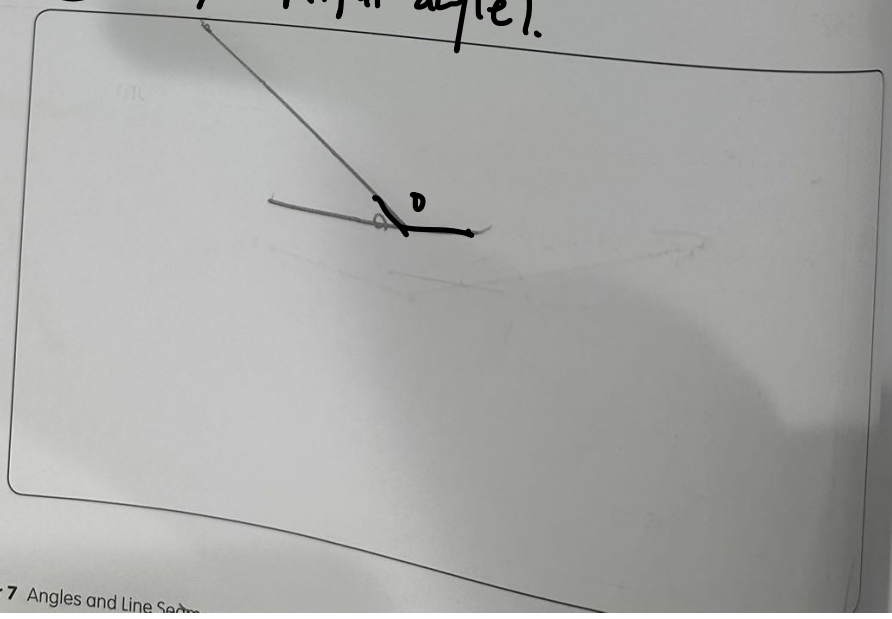
Draw an angle with each given angle measure. Then, mark and label each angle.

12 35°



13 138° > 90° (Right angle).



Underline the best estimate of each object.

6. The volume of a bottle of perfume is about 1 (fluid ounces / cups / pints / quarts / gallons).

7. About 3 (fluid ounces / cups / pints / quarts / gallons) of flour are needed to bake a cake.

8. The volume of a carton of milk is about 1 (fluid ounce / cup / pint / quart / gallon).

9. A pail can hold about 10 (fluid ounces / cups / pints / quarts / gallons) of liquid.

10. The volume of a tin of peanut oil is about 3 (fluid ounces / cups / pints / quarts / gallons).

Fill in each blank.

11. 12 lb = 192 oz

12 × 16 = 192

12. 4 T = 640 oz

32000 × 4 = 128000

13. 8 c = 64 fl oz

8 × 8 = 64

14. 15 pt = 30 c

15 × 160 = 2400

70 × 16 = 1120

15. 17 pt = 40 fl oz

16. 23 qt = 92 pt

23 × 2 = 46

ounce = 28 mL
cups = 236 mL
pints = 473 mL
quarts = 0.946 L = 946 mL
gallons = 3.78 L = 3780 mL

lb = 16 oz
c = 8 oz
pt = 16 oz
T = 32000 oz
qt = 2 pt

17 29 qt = _____ c

18 35 qt = _____ c

19 7 gal = _____ pt

20 24 gal = _____ c

Compare each pair of volumes. Write >, <, or =.

21 9 oz ◯ 4 lb

22 8,500 lb ◯ 6 T

23 3 c ◯ 3 pt

24 15 pt ◯ 13 c

25 18 pt ◯ 300 fl oz

26 16 qt ◯ 8 pt

27 500 fl oz ◯ 25 pt

28 12 c ◯ 48 qt

29 3 gal ◯ 24 pt

30 7 gal ◯ 19 qt

31 98 c ◯ 14 gal

32 21 c ◯ 168 fl oz

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