

This test covers material taught in Dimensions Math 4B.
You will need a set square, a protractor, and a ruler for this test.

1 Find the values.

(a) $5 \text{ km } 603 \text{ m} = \boxed{} \text{ m}$

(b) $4 \text{ L } 88 \text{ mL} = \boxed{} \text{ mL}$

(c) $2 \text{ m } 10 \text{ cm} = \boxed{} \text{ cm}$

(d) $7 \text{ kg } 1 \text{ g} = \boxed{} \text{ g}$

2 Add or subtract in compound units.

(a) $6 \text{ ft } 8 \text{ in} + 1 \text{ ft } 5 \text{ in} = \underline{\hspace{2cm}}$

(b) $5 \text{ c } 6 \text{ fl oz} + 7 \text{ fl oz} = \underline{\hspace{2cm}}$

(c) $8 \text{ oz} + 1 \text{ lb } 6 \text{ oz} = \underline{\hspace{2cm}}$

(d) $3 \text{ yd} - 1 \text{ yd } 1 \text{ ft} = \underline{\hspace{2cm}}$

(e) $4 \text{ h } 15 \text{ min} - 45 \text{ min} = \underline{\hspace{2cm}}$

(f) $4 \text{ gal } 2 \text{ qt} - 1 \text{ gal } 3 \text{ qt} = \underline{\hspace{2cm}}$

3 Fill in the blanks.

(a) $\frac{3}{10}$ L = mL

(b) $\frac{1}{3}$ ft = in

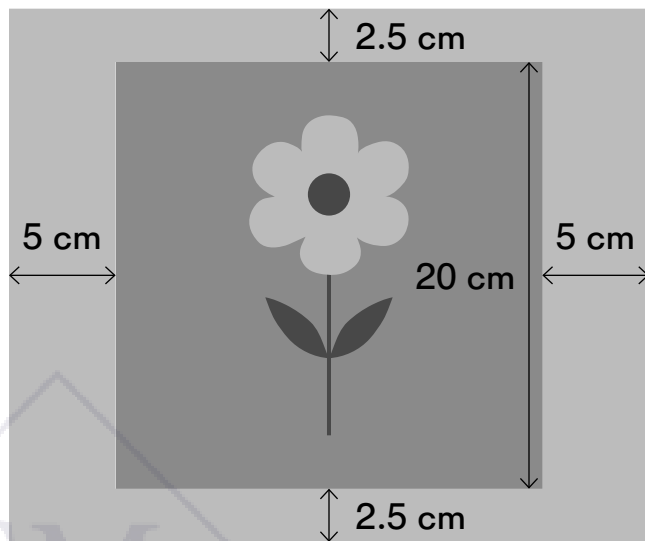
(c) $2\frac{2}{5}$ m = m cm

(d) $2\frac{5}{6}$ min = min s

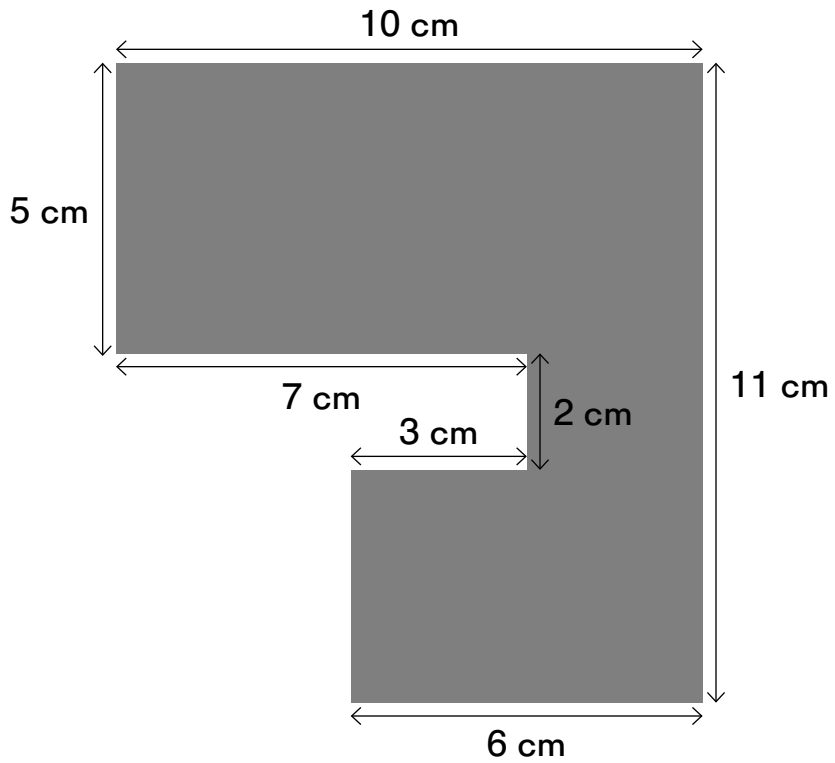
(e) 12 h = day

(f) 60 cm = m

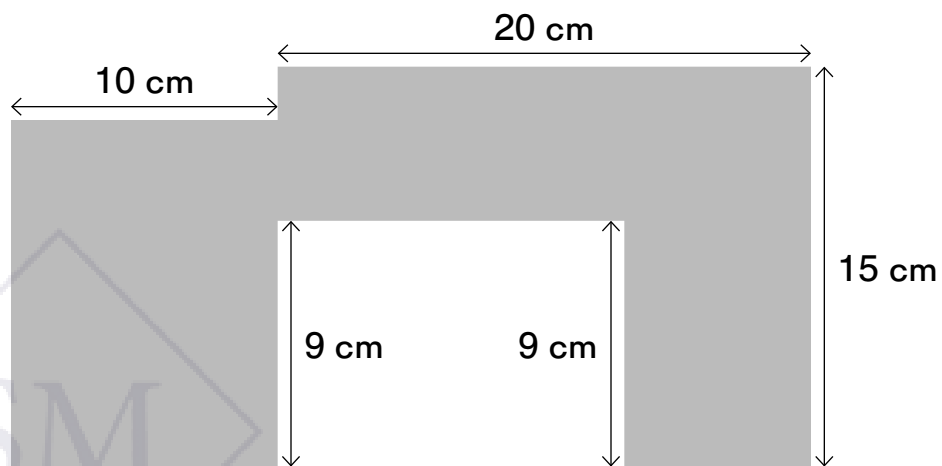
4 A square picture with a side of 20 cm is placed in the middle of a rectangular picture frame. What is the area of the border around the picture?



- 5 Find the area of the following figure.



- 6 Find the perimeter of the following figure.



- 7 Write the number represented by each letter as a decimal.



- 8 Express each decimal as a fraction or mixed number in simplest form.

(a) 0.8

(b) 3.75

(c) 0.05

(d) 70.14

- 9 Express each of the following as a decimal.

(a) 3 hundredths

(b) 63 tenths

(c) 10 ones 13 tenths

(d) $\frac{58}{100}$

(e) $\frac{5}{2}$

(f) $3\frac{1}{50}$

- 10 Arrange the numbers from least to greatest.

5.2, $\frac{2}{5}$, 2.5, 0.25, $5\frac{1}{2}$

- 11 Fill in the blanks.

(a) $3.57 = 3 + \boxed{} + 0.5$

(b) $10 - 0.4 - 8.6 = \boxed{}$

(c) $6.4 + 2.1 + 1.8 = \boxed{}$

(d) $537 - 31.8 = \boxed{}$

- 12 Fill in the blanks.

(a) 1.73 rounded to a whole number is _____.

(b) 56.09 rounded to a whole number is _____.

(c) 0.38 rounded to 1 decimal place is _____.

(d) 27.96 rounded to 1 decimal place is _____.

(e) 11.47 seconds rounded to the nearest tenth of a second is _____ seconds.

(f) 11.47 kg rounded to the nearest kilogram is _____ kilograms.

13 Find the values.

(a) $3.76 + 8.53 =$

(b) $4.24 - 1.03 =$

(c) $0.1 - 0.06 =$

(d) $7.06 - 3.1 =$

14 Find the values.

(a) $0.03 \times 8 =$

(b) $250.8 \times 4 =$

(c) $60.04 \times 3 =$

(d) $187.31 \times 6 =$

15 Find the values.

(a) $0.1 \div 5 =$

(b) $0.63 \div 7 =$

(c) $149.6 \div 4 =$

(d) $28.05 \div 3 =$

16 Dion had \$3. He spent \$2.40. What fraction of his money did he have left?

17 The area of a rectangle is 51.6 cm^2 . The width of the rectangle is 6 cm. What is the perimeter of the rectangle?



- 18** A tennis racket costs twice as much as a baseball bat. The baseball bat costs \$3.75 more than a ping pong paddle. The total cost of 1 tennis racket, 1 baseball bat, and 2 ping pong paddles is \$191.25. How much does one ping pong paddle cost?

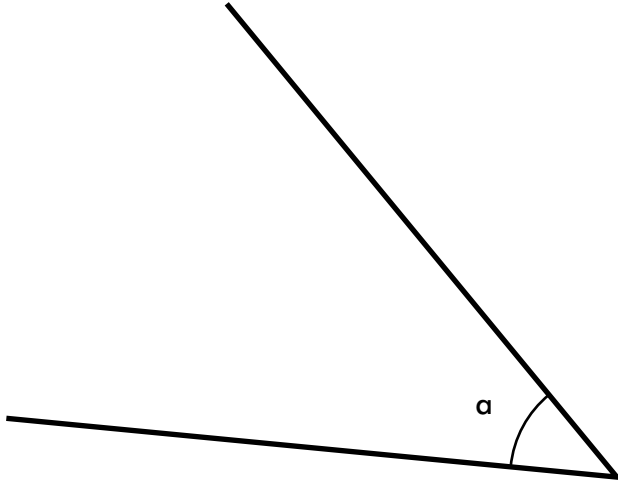
- 19** Check (✓) the statements that are correct.

A 75° angle is an acute angle.	
An obtuse angle is between 180° and 360° .	
A half turn is equal to 100° .	
A straight angle is equal to 180° .	

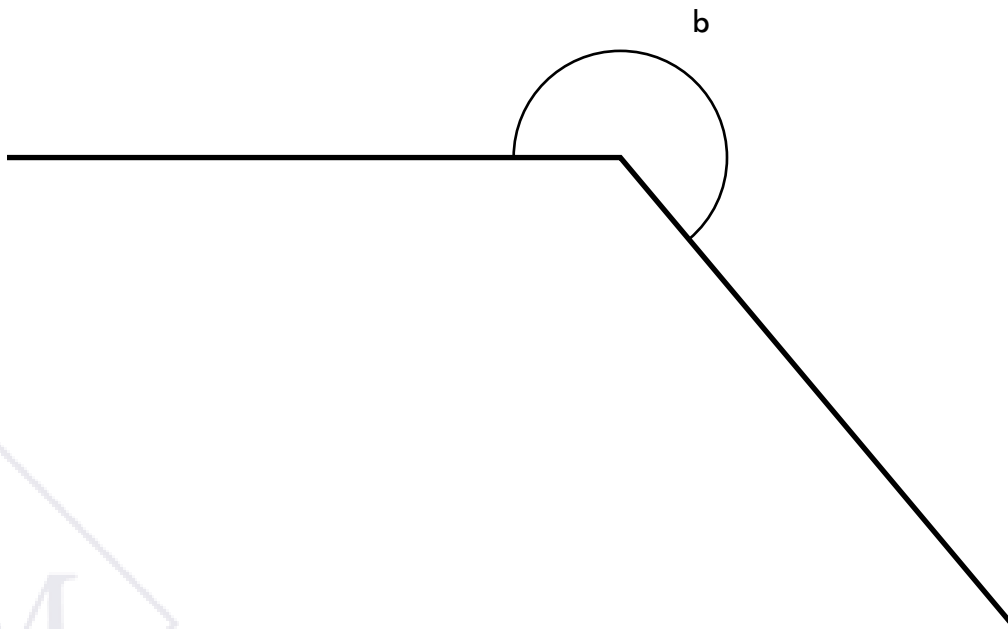


20 Measure the size of each angle.

(a)

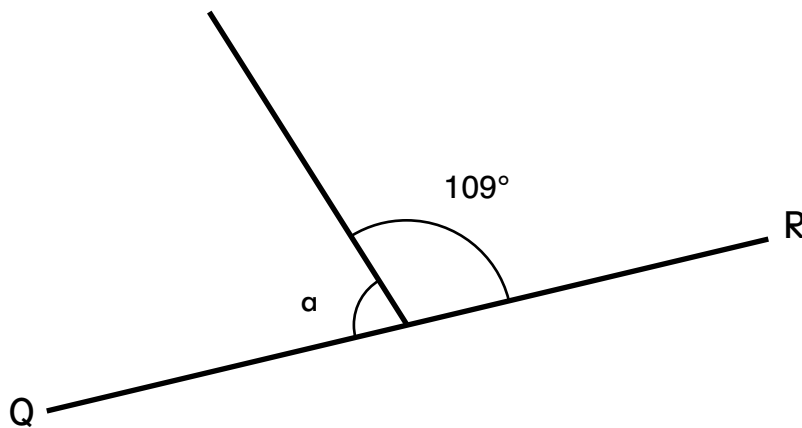


(b)

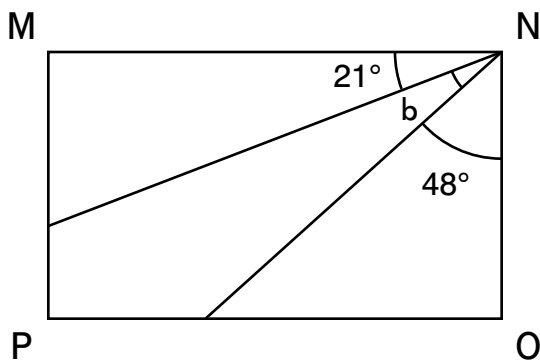


21 Find the measure of each unknown angle.

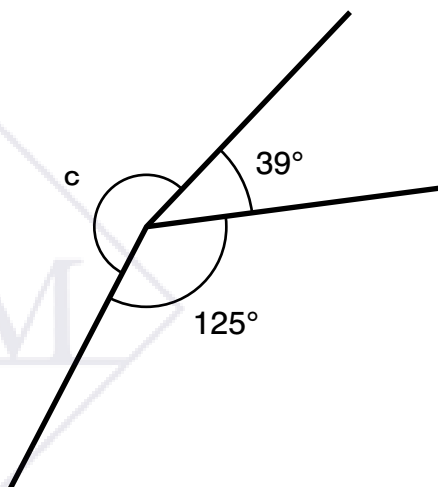
(a) QR is a straight line.



(b) MNOP is a rectangle.



(c)



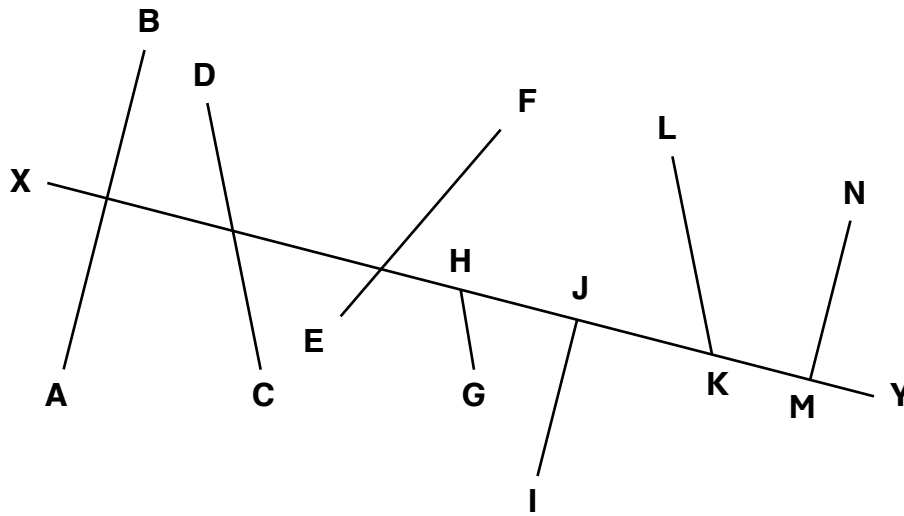
22 Draw a 175° angle.

23 Check (✓) the statements that are correct.

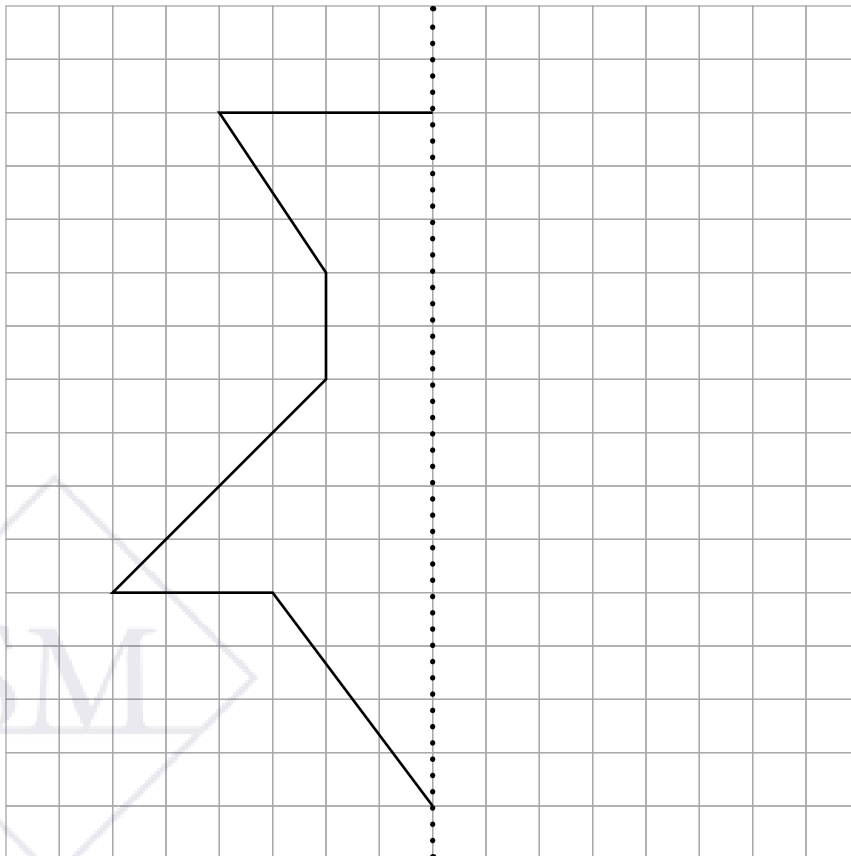
A rhombus is a parallelogram with four equal sides.	
All quadrilaterals are parallelograms.	
All parallelograms are rectangles.	
All parallelograms have two pairs of parallel sides.	



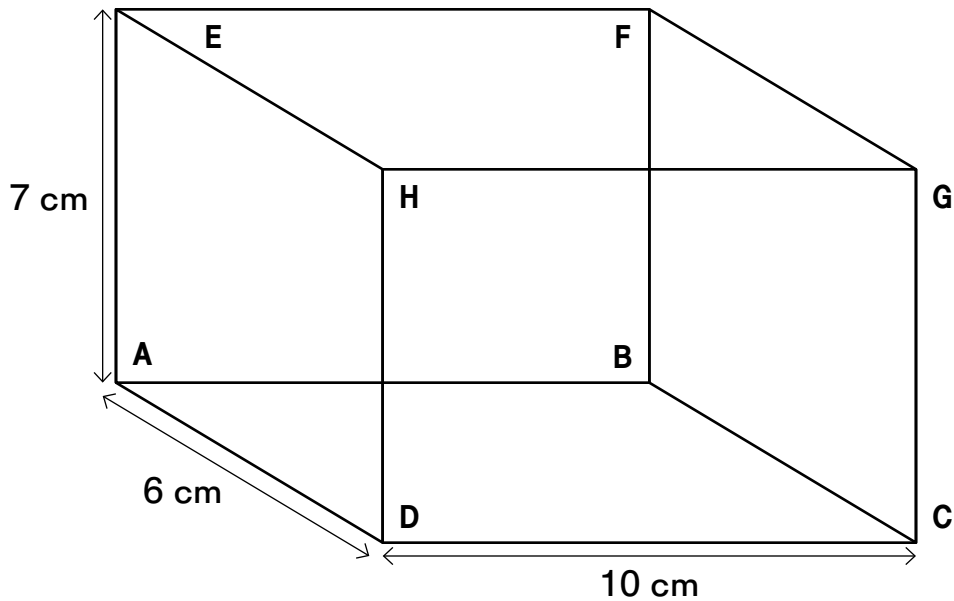
- 24 Name two pairs of perpendicular lines and two pairs of parallel lines in the figure below.



- 25 Complete the figure so that the dotted line is a line of symmetry.



- 26 Use the cuboid below to answer the following questions.



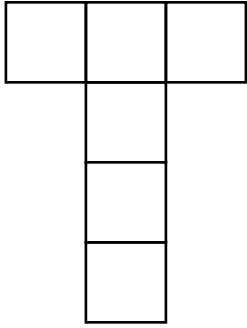
(a) List all the edges that have the same length as Edge BC.

(b) What is the area of Face ADHE?

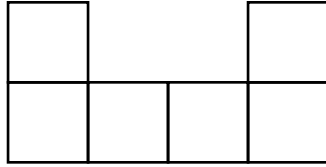
(c) Name two edges that are parallel to Edge DC.

(d) Name two faces that are perpendicular to Face ABFE.

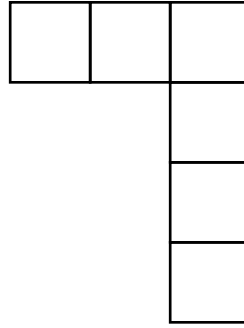
27 Which of the following are nets of a cube?



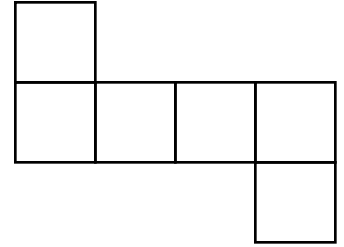
A



B



C



D



Answer Key

- 1** (a) 5,603 (b) 4,088
(c) 210 (d) 7,001
-

- 2** (a) 8 ft 1 in (b) 6 c 5 fl oz
(c) 1 lb 14 oz (d) 1 yd 2 ft
(e) 3 h 30 min (f) 2 gal 3 qt
-

- 3** (a) 300 (b) 4
(c) 2 m 40 cm (d) 2 min 50 s
(e) $\frac{1}{2}$ (f) $\frac{3}{5}$
-

- 4** 350 cm²
-

- 5** 80 cm²
-

- 6** 108 cm
-

- 7** A: 3.03
B: 3.13
C: 3.19
-

- 8** (a) $\frac{4}{5}$ (b) $3\frac{3}{4}$
(c) $\frac{1}{20}$ (d) $70\frac{7}{50}$
-

- 9** (a) 0.03 (b) 6.3
(c) 11.3 (d) 0.58
(e) 2.5 (f) 3.02
-

- 10** 0.25, $\frac{2}{5}$, 2.5, 5.2, $5\frac{1}{2}$
-

- 11** (a) 0.07 (b) 1
(c) 10.3 (d) 505.2
-

- 12** (a) 2 (b) 56
(c) 0.4 (d) 28.0
(e) 11.5 (f) 11
-

- 13** (a) 12.29 (b) 3.21
(c) 0.04 (d) 3.96
-

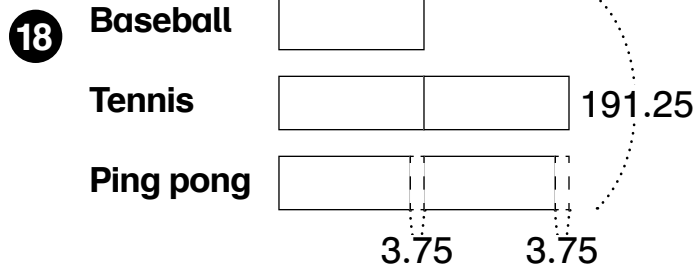
- 14** (a) 0.24 (b) 1,003.2
(c) 180.12 (d) 1,123.86
-

- 15** (a) 0.02 (b) 0.09
(c) 37.4 (d) 9.35
-

- 16** $\frac{1}{5}$
-

- 17** 29.2 cm
-

Answer Key



$$5 \text{ units} \rightarrow 191.25 + 3.75 + 3.75 = 198.75$$

$$1 \text{ unit} \rightarrow 198.75 \div 5 = 39.75$$

$$39.75 - 3.75 = 36$$

\$36

19	At 75° angle is an acute angle.	✓
	An obtuse angle is between 180° and 360° .	
	A half turn is equal to 100° .	
	A straight angle is equal to 180° .	✓

20 Measurements may vary by a few degrees.

(a) 45°

(b) 230°

- 21
- (a) 71°
- (b) 21°
- (c) 196°

22 Orientation may vary.

23	A rhombus is a parallelogram with four equal sides.	✓
	All quadrilaterals are parallelograms.	
	All parallelograms are rectangles.	
	All parallelograms have two pairs of parallel sides.	✓

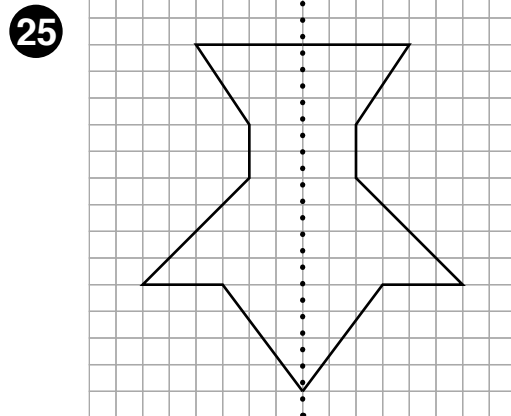
24 Order of letters may vary.

Any two:

$AB \perp XY$, $IJ \perp XY$, $NM \perp XY$

Any two:

$DC \parallel LK$, $AB \parallel IJ$, $AB \parallel NM$, $IJ \parallel NM$



26 Order of letters and names may vary.

(a) AD, FG, EH

(b) 42 cm^2

(c) Any two: AB, EF, HG

(d) Any two: ADHE, CGFB, HGFE, DCBA

27 A and D