

Extra Practice 1**Lesson 1: Measuring Linear Dimensions**

- Which unit of length would you use to measure each item?
 - the depth of the water in a fish bowl
 - the height of a tall building
 - the distance from Canada to China
 - the thickness of a piece of wood
 - the width of a calculator
- Draw a line of each length.
 - 3 cm
 - 9 cm
 - 16 cm

Lesson 2: Measuring in Millimetres

- Copy and complete.
 - $10 \text{ cm} = \square \text{ mm}$
 - $19 \text{ cm} = \square \text{ mm}$
 - $85 \text{ cm} = \square \text{ mm}$
 - $80 \text{ mm} = \square \text{ cm}$
 - $90 \text{ mm} = \square \text{ cm}$
 - $10 \text{ mm} = \square \text{ cm}$
- Which is shorter? How do you know?
 - 95 mm or 8 cm
 - 20 mm or 19 cm
 - 14 cm or 100 mm
 - 6 cm or 60 mm
 - 75 mm or 9 cm
 - 160 mm or 16 cm
- Estimate the length of each line in millimetres.
Measure and record the actual lengths in millimetres and centimetres.
 - _____
 - _____

Lesson 3: Measuring in Decimetres

1. Copy and complete.

- a) 7 dm = cm b) 5 dm = cm c) 3 dm = cm
d) 60 cm = dm e) 90 cm = dm f) 45 cm = dm

2. Which is longer? How do you know?

- a) 6 dm or 40 cm b) 29 cm or 2 dm
c) 2 dm or 200 mm d) 700 mm or 8 dm

3. Which unit would you use to measure each item?

- a) the length of an eyelash
b) the height of a 3-year old child
c) the thickness of a calculator
d) the length of a house

Lesson 5: Relating Units of Measure

1. Copy and complete.

- a) 200 mm = dm b) 3 m = cm c) 56 cm = dm
d) 500 cm = m e) 61 mm = cm f) 24 cm = mm

2. Order these lengths from shortest to longest.

- a) 75 mm, 2 cm, 2 dm b) 3 dm, 16 cm, 140 mm
c) 2 dm, 13 cm, 50 mm d) 5 m, 501 cm, 4999 mm

3. Draw a line of each length.

Record each length in a new way.

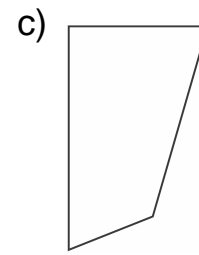
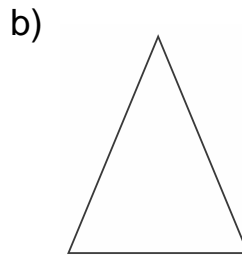
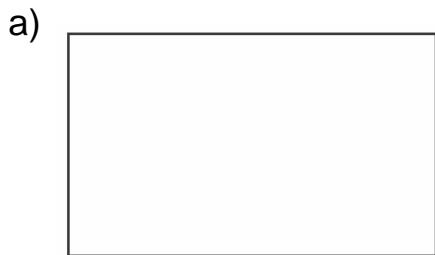
- a) 0.04 m b) 1.3 dm c) 7.6 cm

Master 9.28

Extra Practice 3

Lesson 6: Measuring Perimeter

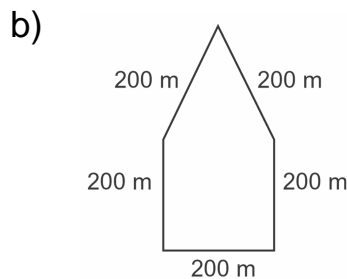
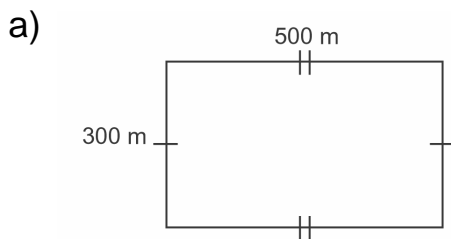
1. Measure to find the perimeter of each figure.



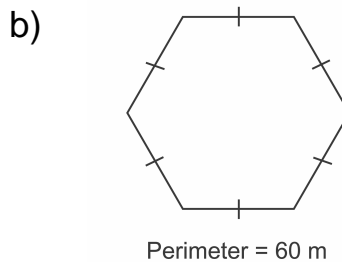
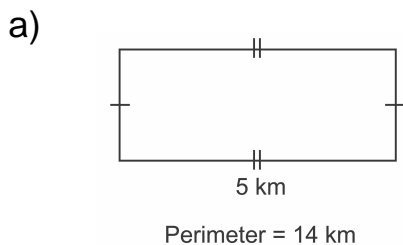
2. Order the figures in question 1 from greatest to least perimeter.

Lesson 7: Finding the Perimeter of a Large Region

1. Find the perimeter of each figure.



2. Write the length of the unmarked side of each regular figure. How do you know you are correct?

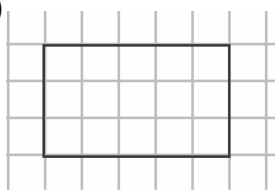


Extra Practice 4

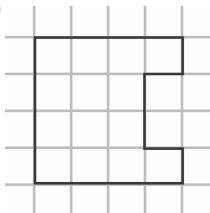
Lesson 8: Exploring Area

1. Find the area of each figure in square units.

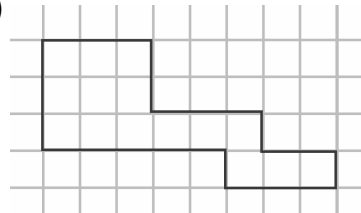
a)



b)



c)



2. Use 1-cm grid paper.

Draw a rectangle with each area.

a) 6 square units

b) 3 square units

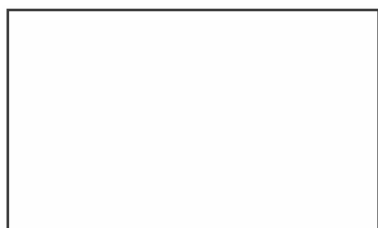
c) 10 square units

Lesson 9: Measuring in Square Centimetres

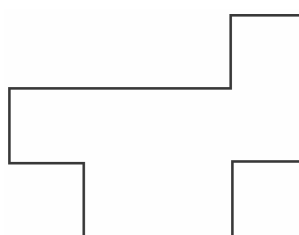
1. Use a transparent 1-cm grid.

Find the area of each figure in square centimetres.

a)



b)



2. Use 1-cm grid paper.

Draw 3 different rectangles with an area of 12 cm^2 .

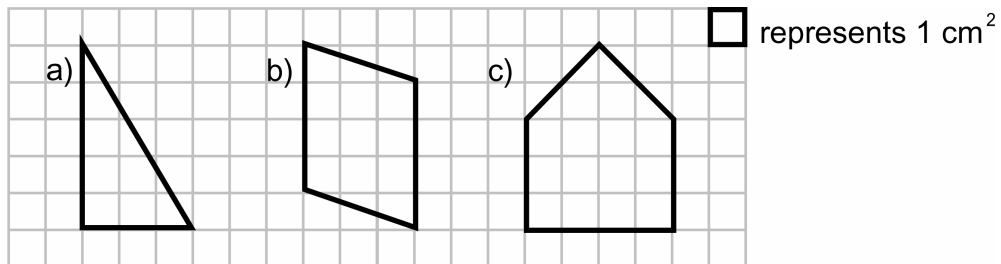
Name _____ Date _____

Master 9.30

Extra Practice 5

Lesson 10: Estimating and Measuring Area

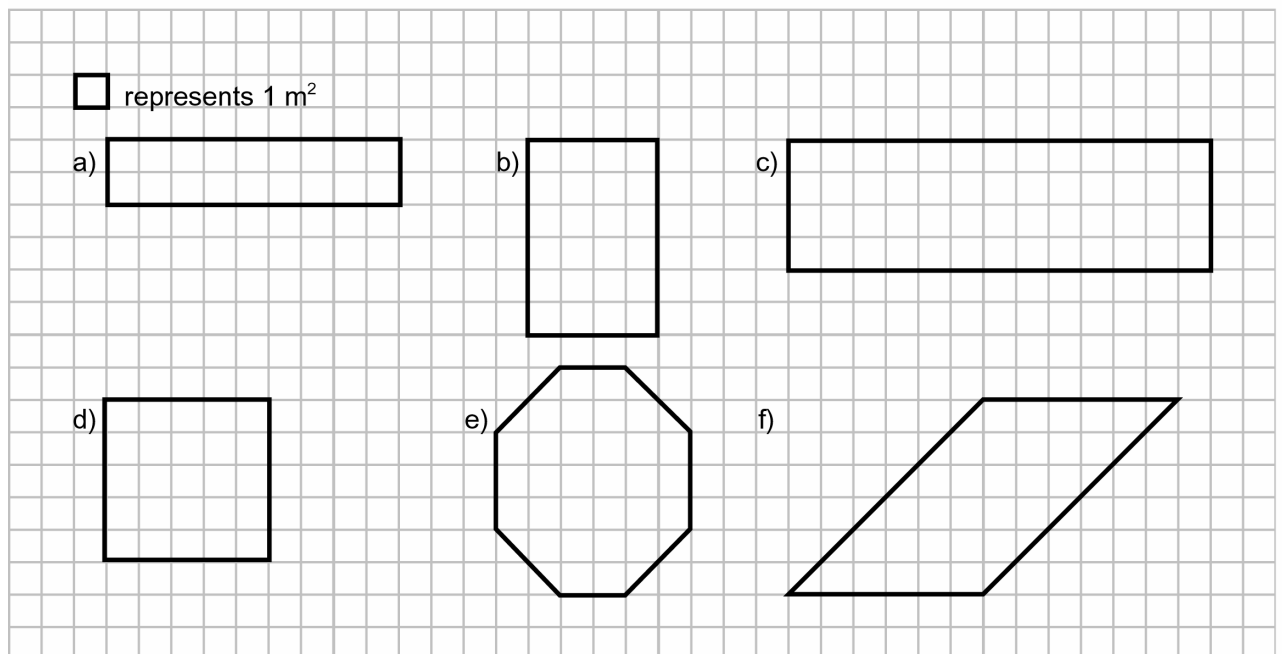
1. Find the approximate area of each figure.



2. Order the figures in question 1 from greatest area to least area.

Lesson 11: Finding Area in Square Metres

1. Find the area of each figure.
Find the area of the grid.



2. Order the figures from least area to greatest area.

Extra Practice 6

Lesson 12: Exploring Figures with Equal Perimeters

1. Use 1-cm grid paper.
Draw all possible rectangles with perimeter 12 cm.
2. Suppose each square represents 1 square metre.
Which rectangle from question 1 would you choose to make a pen for a dog? Explain your choice.
3. Suppose you want to make a rectangular swimming pool with perimeter 30 m.
 - a) Which dimensions would give the greatest area?
 - b) Which dimensions would give the least area?

Lesson 13: Exploring Figures with Equal Areas

1. Use 1-cm grid paper.
Draw all possible rectangles with area 24 cm^2 .
2. Find the perimeter of each rectangle in question 1.
3. Suppose each square represents 1 square metre.
Which rectangle from question 1 would you choose to make a pen for a dog? Explain.

Master 9.32**Sample Answers****Extra Practice 1 – Master 9.26****Lesson 1**

- a) centimetres b) metres
 c) kilometres d) millimetres or
 e) centimetres centimetres
- 3 lines of lengths 3 cm, 9 cm, and 16 cm

Lesson 2

- a) 100 mm b) 190 mm
 c) 850 mm d) 8 cm
 e) 9 cm f) 1 cm
- a) 8 cm < 95 mm b) 20 mm < 19 cm
 c) 100 mm < 14 cm d) 6 cm = 60 mm
 e) 75 mm < 9 cm f) 160 mm = 16 cm
 I rewrite one measure using the same units as the other measure, and then compare the two measures.
- a) About 50 mm; 47 mm, 4.7 cm
 b) About 10 mm; 12 mm, 1.2 cm

Extra Practice 2 – Master 9.27**Lesson 3**

- a) 7 dm = 70 cm b) 5 dm = 50 cm
 c) 3 dm = 30 cm d) 60 cm = 6 dm
 e) 90 cm = 9 dm f) 45 cm = 4.5 dm
- a) 6 dm > 40 cm b) 29 cm > 2 dm
 c) 2 dm = 200 mm d) 700 mm < 8 dm
- a) millimetres b) centimetres or
 c) millimetres metres
 d) metres

Lesson 5

- a) 200 mm = 2 dm b) 3 m = 300 cm
 c) 56 cm = 5.6 dm d) 500 cm = 5 m
 e) 61 mm = 6.1 cm f) 24 cm = 240 mm
- a) 2 cm, 75 mm, 2 dm
 b) 140 mm, 16 cm, 3 dm
 c) 50 mm, 13 cm, 2 dm
 d) 4999 mm, 5 m, 501 cm
- 3 lines of lengths 0.04 m, 1.3 dm, and 7.6 cm;
 Students should rewrite each measure using another unit.
 0.04 m = 4 cm, 40 mm, or 0.4 dm
 1.3 dm = 13 cm, 0.13 m, 130 mm
 7.6 cm = 76 mm

Extra Practice 3 – Master 9.28**Lesson 6**

- a) 16 cm b) 8.5 cm
 c) 8.7 cm
- 16 cm, 8.7 cm, 8.5 cm

Lesson 7

- a) 1600 m or 1.6 km b) 1000 m or 1 km
- a) 2 km
 b) 10 m

Extra Practice 4 – Master 9.29**Lesson 8**

- a) 15 square units b) 14 square units
 c) 15 square units
- 3 rectangles covering 6 squares, 3 squares, and 10 squares

Lesson 9

- a) 15 cm² b) 7 cm²
- Possible rectangles:
1 cm by 12 cm, 2 cm by 6 cm, 3 cm by 4 cm

Extra Practice 5 – Master 9.30**Lesson 10**

- a) About 8 cm²
 b) About 11 cm² (exactly 12 cm²)
 c) 16 cm²
- c, b, a

Lesson 11

- a) 18 m² b) 24 m²
 c) 52 m² d) 25 m²
 e) 34 m² f) 36 m²
- Area of grid is 780 m².
a, b, d, e, f, c

Extra Practice 6 – Master 9.31

Lesson 12

1. Possible rectangles:
1 cm by 5 cm, 2 cm by 4 cm, and 3 cm by 3 cm
2. The rectangle that has the greatest area is the 3 m by 3 m square. It has an area of 9 m^2 .
3. a) 7 m by 8 m; an area of 56 m^2
b) 1 m by 14 m; an area of 14 m^2

Lesson 13

1. Possible rectangles:
1 cm by 24 cm, 2 cm by 12 cm, 3 cm by 8 cm,
and 4 cm by 6 cm
2. 1 cm by 24 cm; perimeter = 50 cm
2 cm by 12 cm; perimeter = 28 cm
3 cm by 8 cm; perimeter = 22 cm
4 cm by 6 cm; perimeter = 20 cm
3. The 4 m by 6 m pen because it has the least perimeter, so it would be cheaper.

