Measurement and Geometry: Exercise Supplement*

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Abstract

This module is from Fundamentals of Mathematics by Denny Burzynski and Wade Ellis, Jr. This module is an exercise supplement for the chapter "Measurement and Geometry" and contains many exercise problems. Odd problems are accompanied by solutions.

1 Exercise Supplement

1.1 Measurement and the United States System ()

Exercise 1 *(Solution on p. 8.)*
What is measurement?

For problems 2-6, make each conversion. Use the conversion table given in Section 9.1.

Exercise 2
9 ft= _____ yd

Exercise 3 *(Solution on p. 8.)*
32 oz=_____ lb

Exercise 4
1,500 mg =_____ g

Exercise 5 *(Solution on p. 8.)*
12,000 lb =_____ T

Exercise 6
5,280 ft=_____ mi

For problems 7-23, make each conversion.

Exercise 7 *(Solution on p. 8.)*
23 yd to ft

Exercise 8
$2\frac{1}{2}$mi to yd

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Exercise 9 *(Solution on p. 8.)*
8 in. to ft

Exercise 10
51 in. to mi

Exercise 11 *(Solution on p. 8.)*
3 qt to pt

Exercise 12
8 lb to oz

Exercise 13 *(Solution on p. 8.)*
5 cups to tbsp

Exercise 14
9 da to hr

Exercise 15 *(Solution on p. 8.)*
$3\frac{1}{2}$ min to sec

Exercise 16
$\frac{3}{4}$ wk to min

1.2 The Metric System of Measurement ()

Exercise 17 *(Solution on p. 8.)*
250 mL to L

Exercise 18
18.57 cm to m

Exercise 19 *(Solution on p. 8.)*
0.01961 kg to mg

Exercise 20
52,211 mg to kg

Exercise 21 *(Solution on p. 8.)*
54.006 dag to g

Exercise 22
1.181 hg to mg

Exercise 23 *(Solution on p. 8.)*
3.5 kL to mL

1.3 Simplification of Denominate Numbers ()

For problems 24-31, perform the indicated operations. Simplify, if possible.

Exercise 24
Add 8 min 50 sec to 5 min 25 sec.

Exercise 25 *(Solution on p. 8.)*
Add 3 wk 3 da to 2 wk 5 da

Exercise 26
Subtract 4 gal 3 qt from 5 gal 2 qt.

Exercise 27 *(Solution on p. 8.)*
Subtract 2 gal 3 qt 1pt from 8 gal 2 qt.

Exercise 28
Subtract 5 wk 4 da 21 hr from 12 wk 3 da 14 hr.

Exercise 29 *(Solution on p. 8.)*
Subtract 2 T 1,850 lb from 10 T 1,700 lb.

Exercise 30
Subtract the sum of 2 wk 3 da 15 hr and 5 wk 2 da 9 hr from 10 wk.

Exercise 31 *(Solution on p. 8.)*
Subtract the sum of 20 hr 15 min and 18 hr 18 min from the sum of 8 da 1 hr 16 min 5 sec.

For problems 32-43, simplify, if necessary.

Exercise 32
18 in.

Exercise 33 *(Solution on p. 8.)*
4 ft

Exercise 34
23 da

Exercise 35 *(Solution on p. 8.)*
3,100 lb

Exercise 36
135 min

Exercise 37 *(Solution on p. 8.)*
4 tsp

Exercise 38
10 fl oz

Exercise 39 *(Solution on p. 8.)*
7 pt

Exercise 40
9 qt

Exercise 41 *(Solution on p. 8.)*
2,300 mm

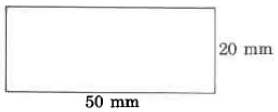
Exercise 42
14,780 mL

Exercise 43 *(Solution on p. 8.)*
1,050 m

1.4 Perimeter, Circumference, Area and Volume of Geometric Figures and Objects (,)

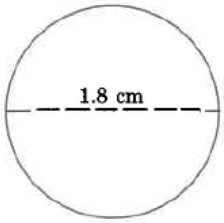
For problems 44-58, find the perimeter, circumference, area or volume.

Exercise 44
Perimeter, area



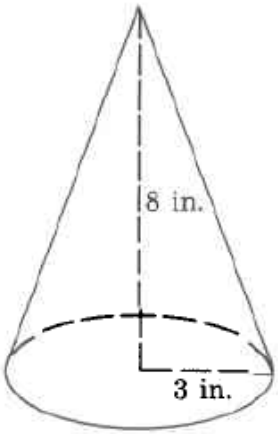
Exercise 45 *(Solution on p. 8.)*

Approximate circumference



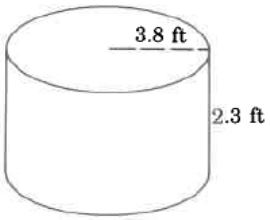
Exercise 46

Approximate volume



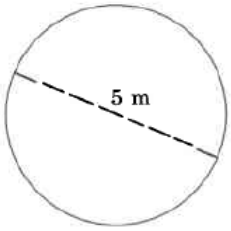
Exercise 47 *(Solution on p. 8.)*

Approximate volume



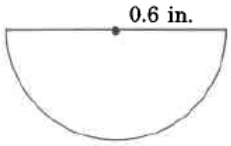
Exercise 48

Exact area

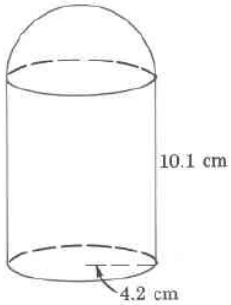


Exercise 49 *(Solution on p. 8.)*

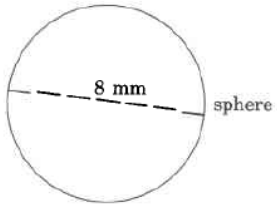
Exact area



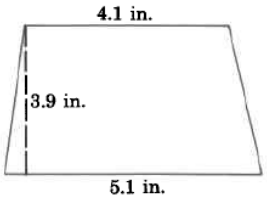
Exercise 50
Exact volume



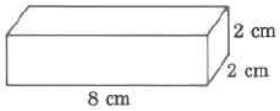
Exercise 51 ***(Solution on p. 9.)***
Approximate volume



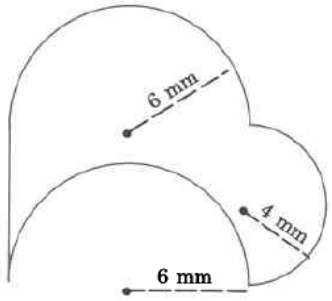
Exercise 52
Area



Exercise 53 ***(Solution on p. 9.)***
Volume

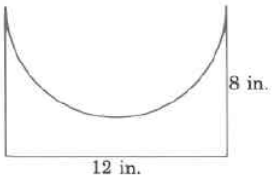


Exercise 54
Exact area



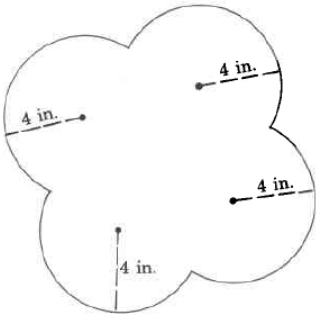
Exercise 55 *(Solution on p. 9.)*

Approximate area



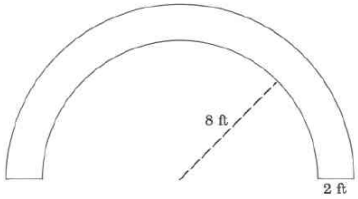
Exercise 56

Exact area



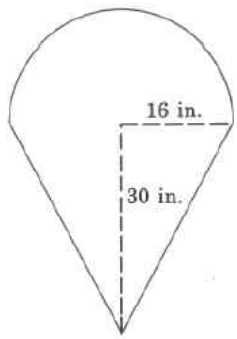
Exercise 57 *(Solution on p. 9.)*

Approximate area



Exercise 58

Approximate area


16 in.
30 in.

Solutions to Exercises in this Module

Solution to Exercise (p. 1)
Measurement is comparison to a standard (unit of measure).
Solution to Exercise (p. 1)
2 pounds
Solution to Exercise (p. 1)
6 tons
Solution to Exercise (p. 1)
69 feet
Solution to Exercise (p. 2)
$\frac{2}{3} = 0.66\overline{6}$ feet
Solution to Exercise (p. 2)
6 pints
Solution to Exercise (p. 2)
80 tablespoons
Solution to Exercise (p. 2)
210 seconds
Solution to Exercise (p. 2)
$\frac{1}{4} = 0.25\text{L}$
Solution to Exercise (p. 2)
19,610 mg
Solution to Exercise (p. 2)
540.06 g
Solution to Exercise (p. 2)
3,500,000 mL
Solution to Exercise (p. 2)
6 weeks 1 day
Solution to Exercise (p. 2)
5 gallons 2 quarts 1 pint
Solution to Exercise (p. 3)
7 T 1,850 pounds
Solution to Exercise (p. 3)
7 days, 11 hours, 56 minutes, 7 seconds
Solution to Exercise (p. 3)
1 yard 1 foot
Solution to Exercise (p. 3)
1 ton 1,100 pounds
Solution to Exercise (p. 3)
1 tablespoon 1 teaspoon
Solution to Exercise (p. 3)
3 quarts 1 pint
Solution to Exercise (p. 3)
2.3 meters
Solution to Exercise (p. 3)
1.05 km
Solution to Exercise (p. 4)
5.652 sq cm
Solution to Exercise (p. 4)
104.28568 cu ft

Solution to Exercise (p. 4)
0.18π sq in.
Solution to Exercise (p. 5)
267.94667 cu mm
Solution to Exercise (p. 5)
32 cu cm
Solution to Exercise (p. 6)
39.48 sq in.
Solution to Exercise (p. 6)
56.52 sq ft