SECTION 1 REVIEW OF BASIC FUNDAMENTALS

UNIT 1 SOME BASIC RULES FOR MATHEMATICS

Answer these questions.
1) What kind of measure is used to describe the size of a car's fuel tank? Cubic, volume, three dimensional.
2) What kind of measure is used to order fabric? Square, area, two dimensional.
3) The distance between cities is expressed with what kind of measure? Lineal or linear.

1. 15.7
2. 9.42
3. 38.277 or 38.2766
4. 1700
5. 8540
6. −6
7. −3
8. 9
9. −2
10. 19
11. 0
12. 4
13. 0.333 or ⅓

UNIT 2 FORMULAS

Do the following problems.

1) $3 + 3 \times 4 = 15$
2) $(3 + 3) \times 4 = 24$
3) $3 + (3 \times 4) = 15$
4) $3 + 3 \times 4^2 = 51$
5) $3 + (5 + 4)^2 = 84$
6) $(3 + 5) + 4^2 = 24$
7) $3 + (5 + 4^2) = 24$
8) $3 + 4 \times 3 - 6 = 9$
9) $3 - 6 + 4 \times 3 = 9$
10) $(3 - 6 + 4) \times 3 = 3$
11) $3 - (6 + 4 \times 3) = -15$
12) $3 - [(6 + 4) \times 3] = -27$
13) $\frac{11 \times 6^2}{3^2} = 44$

A.
1. P = 50′-0″
2. 9 = 42 m
3. P = 67′-6″
4. P = 19.5 m
5. C = 40.035″
6. C = 101.422 cm
7. P = 35.98 ft.

B.
1. A = 210.25 sq. in.
2. A = 1,225 cm^2
3. A = 15.75 sq. ft.
4. A = 15.75 m^2
5. A = 117 sq. ft.
6. A = 216 sq. in.
7. A = 864 cm^2
8. A = 254.34 sq. in.
9. A = 2,122.64 cm^2
10. A = 196.25 cm^2

C.
1. V = 1,728 cu. in.
2. V = 1,000 cm^3
3. V = 180 cu. yd.
4. V = 154 m^3
5. V = 3,264 cu. ft.
6. V = 302.76 cm^3
7. V = 699.435 cu. ft.
8. V = 11,627.42 cm^3
9. V = 5,699.10 cu. in.
10. A = L × W
11. V = S × S × h

UNIT 3 SOLVING FORMULAS/EQUATIONS

Practice problems:
Formula: A = L × W: this is the formula for the area of a rectangle. Area is equal to length multiplied times width.

1. 60
2. 9
3. 20
4. 12
5. 17
6. 4.5

1. 15 ft.
2. 4 m
3. 16′ -6″
4. 21 m
5. 7.01″
6. 17.83 cm
7. 4.8″
8. 4 cm
9. 4″ radius
   8″ diameter
10. 6 cm radius
    12 cm diameter

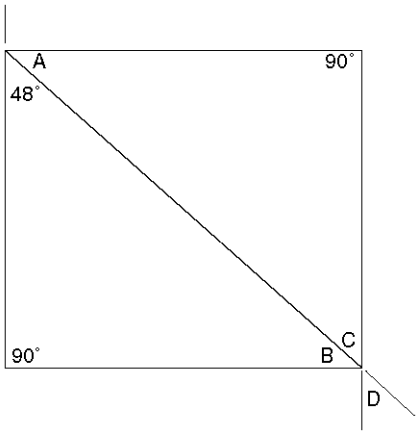
UNIT 4 SQUARE ROOT

1. 10″
2. 17″
3. 32.02″
4. 41.87″
5. 47.93″
6. 16.97″

7. 1.414″
8. 15.05 cm
9. 18.61 cm
10. 29.10 cm
11. 9″
12. 2.24″
13. 12.45″
14. 7 cm
15. 39.55 cm

UNIT 5 REVIEW OF ANGLE MEASURE

1. a.



b. Student readings should compare closely with computed measurements.
c. Angle C = 48° Alternate angles are equal.
Angle A = 90° − 48° = 42° Right angle = 90°
or
Angle B = 180° − (48° + 90°) = 42° Sum of 3 angles = 180°
Angle A = 42° Alternate angles are equal.
Angle D = Angle C = 48° Opposite angles are equal.

2. A = 30°
B = 45°
C = 66°
D = 102°
E = 9°
F = 22°
G = 48°
H = 67°
I = 78°
3. ∠A = 25°
∠B = 10°
∠C = 58°
∠D = 122°
∠E = 160°
∠F = 31½° or 31°30′

UNIT 6 CONVERSION OF LENGTH MEASURES

11. 85 cm
12. 8.72 m

	Inches and Fractional Parts of Inch	Inches and Decimal Parts of Inch	Feet, Inches and Fractional Parts of Inch	Feet and Decimal Parts of Foot
1.	19 11/16″	19.687″	1′-7 11/16″	1.64′
2.	42 3/8″	42.375″	3′-6 3/8″	3.53′
3.	26 3/8″	26.35″	2′-2 3/8″	2.20′
4.	69 15/16″	69.94″	5′-9 15/16″	5.83′
5.	100 1/2″	100.5″	8′-4 1/2″	8.38″
6.	33 3/16″	33.19″	2′-9 3/16″	2.77′
7.	66 13/16″	66.84″	5′-6 13/16″	5.57′
8.	181 1/16″	181.08″	15′-1 1/16″	15.09′
9.	103 3/4″	103.75″	8′-7 3/4″	8.65′
10.	79 3/4″	79.75″	6′-7 3/4″	6.65″