College of the North Atlantic

AM1101 Sample Test 7

Geometry

Name: Solns/ 20

Class: _____

Date: _____

Note: Electronics devices can be used to check your answers, but you must show all workings to receive full credit.

Write the UPPERCASE letter of the correct answer in the correct blank on the answer sheet provided.

1. Find the perimeter of a square where each side measures 7.2 cm. $P = 4 \times 7.2 = 28.8$

   a. 28.8 cm **b.** 51.84 cm **c.** 14.4 cm **d.** 25.92 cm

2. Find the perimeter of a parallelogram with one side that measures 9.8 cm and another that is 13.7 cm. $2 \times 9.8 + 2 \times 13.7 = 47$

   a. 94 cm **b.** 23.5 cm **c.** 134.26 cm **d.** 47 cm

3. Find the perimeter of a triangle with sides that measure 16.8 cm, 9.59 cm, and 14.4 cm. $P = 16.8 + 9.59 + 14.4 =$

   a. 12.71 cm **b.** 127.1 cm **c.** 40.79 cm **d.** 32.39 cm

4. Find the area of a rectangle that measures 22 m by 18 m. $A = 22 \times 18 =$

   a. 80 m^2 **b.** 396 m^2 **c.** 40 m^2 **d.** 198 m^2

5. Find the area of a trapezoid with height 8 m and bases that measure 5 m and 12 m. $A = \frac{1}{2}(5+12) \times 8 =$

   a. 25 m^2 **b.** 480 m^2 **c.** 68 m^2 **d.** 50 m^2

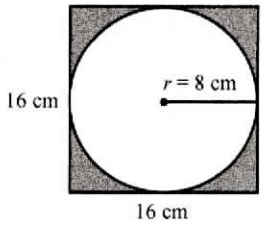
6. Find the area of a triangle with base 14 cm and height 9 cm. $A = \frac{14 \times 9}{2} =$

   a. 46 cm^2 **b.** 126 cm^2 **c.** 12.5 cm^2 **d.** 63 cm^2

7. Find the circumference of a circle with radius 4 m. Round to the nearest tenth. $C = 2\pi r = 2(3.14)(4) =$

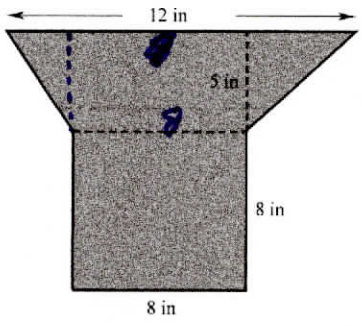
   a. 25.1 m **b.** 50.2 m **c.** 157.8 m **d.** 12.6 m

8. Find the area of the shaded region. $16^2 - 3.14 \times 8^2 =$



   a. 457.0 cm^2 **b.** 55.0 cm^2 **c.** 13.8 cm^2 **d.** 62.3 cm^2

9. Find the area of the shaded region. $8^2 + \frac{1}{2}(8+12) \times 5 =$



   a. 124 in^2 **b.** 114 in^2 **c.** 94 in^2 **d.** 164 in^2

10. Find the volume of a cylinder with height 3 m and radius 8 m. $V = 3.14(8)^2 \times 3 =$

    a. 226.1 m^3 **b.** 106.8 m^3 **c.** 602.9 m^3 **d.** 79.0 m^3

11. Find the volume of a sphere with radius 5 m. $V = \frac{4}{3}(3.14)5^3$

    a. 1570 m^3 **b.** 294.4 m^3 **c.** 78.5 m^3 **d.** 523.3 m^3

$V = \frac{3.14(6)^2 10}{3} =$

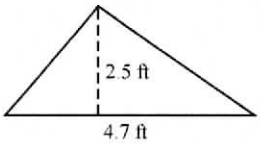
12. Find the volume of a cone with height 10 m and radius 6 m.

a. 376.8 m^3 **b.** 1884 m^3 **c.** 628 m^3 **d.** 1130.4 m^3

13. In a triangle, two of the angles measure 44° and 57°. Find the measure of the third angle. $180-44-57=$

a. 80° **b.** 70° **c.** 79° **d.** 61°

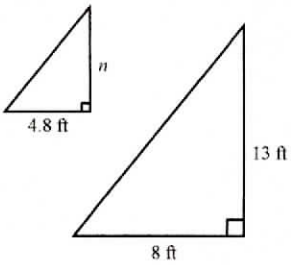
14. Find the area of the triangle below. Round to the nearest hundredth.



a. 5.8 ft^2 **b.** 5.88 ft^2 $\frac{4.7 \times 2.5}{2} =$

c. 11.75 ft^2 **d.** 23.5 ft^2

15. The figures below are similar. Find the missing side, *n*.



a. $n = 9.8$ ft **b.** $n \approx 21.7$

c. $n = 7.8$ ft **d.** $n = 6.9$ ft

$\frac{4.8}{8} = \frac{n}{13}$

$8n = 62.4$

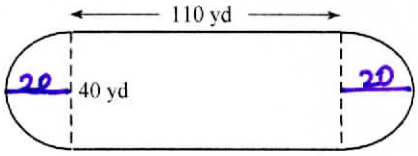
$n =$

$V = 3.14(5)^2 \times 13 = 1020.5\ cm^3$

16. A cylindrical tank in a chemistry lab holds acid. The tank has a radius of 5 cm and a height of 13 cm. The acid weighs 18 g per cubic cm. What is the weight of the acid if the tank is full? $W = 1020.5 \times 18 =$

a. 47 759.4 g **b.** 18 369 g **c.** 3673.8 g **d.** 1170 g

17. An athletic field has the dimensions shown below. What is the area of the field?



a. 8344 yd^2 **b.** 5028 yd^2

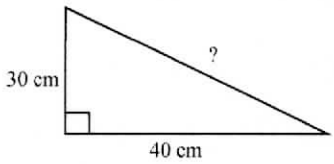
c. 1556 yd^2 **d.** 5656 yd^2

$A = 3.14(20)^2 + 110 \times 40 =$

18. Approximate $\sqrt{419}$ Round to the nearest thousandth.

a. 20.469 **b.** 20.47 **c.** 20.5 **d.** 2.047

19. Find the length of the hypotenuse in the right triangle below:

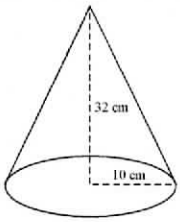


a. 70 cm **b.** 5 cm

c. 55 cm **d.** 50 cm

$\sqrt{30^2+40^2} = 50$

20. Find the volume of the cone below. Round to the nearest tenth.



a. 334.9 cm^3 **b.** 3340 cm^3

c. 3349.3 cm^3 **d.** 3350 cm^3

$V = \frac{3.14(10)^2(32)}{3}$

Module 7 Test Answer Sheet

1. A	6. D	11. D	16. B
2. D	7. A	12. A	17. D
3. C	8. B	13. C	18. A
4. B	9. B	14. B	19. D
5. C	10. C	15. C	20. C

Formulae

Perimeter	Area	Volume
$P = 2l + 2w$ $P = 4s$ $C = \pi d$ $C = 2\pi r$	$A = lw$ $A = s^2$ $A = bh$ $A = \frac{bh}{2}$ $A = \frac{h(b+B)}{2}$ $A = \pi r^2$	$V = lwh$ $V = \frac{Bh}{3}$ $V = \pi r^2 h$ $V = \frac{\pi r^2 h}{3}$ $V = \frac{4\pi r^3}{3}$
$d = 2r$	$c^2 = a^2 + b^2$	