

PRACTICE TEST 4

CHAPTER 10

NAME _____

TEST FORM H

ANSWERS	
20. _____	20. A housefly crosses diagonally from one corner of a 0.8 m by 0.5 m television screen to the far corner. How far does the fly walk? Give an approximate answer to three decimal places. a) 1.012 m b) 2.876 m c) 0.943 m d) 0.765 m
21. _____	21. Express in terms of i and simplify: $\sqrt{-80}$. a) $4i\sqrt{5}$ b) $-2i\sqrt{5}$ c) $i\sqrt{5}$ d) $2i\sqrt{5}$
22. _____	22. Subtract: $(4-i)-(7-5i)$. a) $-3-6i$ b) $-3-4i$ c) $3+4i$ d) $-3+4i$
23. _____	23. Multiply: $\sqrt{-100}\sqrt{-9}$. a) -40 b) -60 c) -30 d) -20
24. _____	24. Multiply. Write the answer in the form $a+bi$. $(3+7i)^2$ a) $-40-42i$ b) $-40+42i$ c) $-40+58i$ d) $-21+20i$
25. _____	25. Divide and simplify to the form $a+bi$. $\frac{7-3i}{5+4i}$. a) $\frac{23}{41}-\frac{43}{41}i$ b) $\frac{23}{13}+\frac{43}{13}i$ c) $-\frac{19}{13}-\frac{22}{13}i$ d) $\frac{19}{41}+\frac{22}{41}i$

19. a 20. c 21. a 22. d 23. c 24. b 25. a

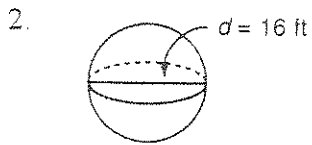
PRACTICE TEST 4
GEOMETRY AND TRIGONOMETRY

Find the volume and surface area of each object shown. Round answers to the nearest tenth.

1. A box that is 5 cm by 9cm by 4 cm.

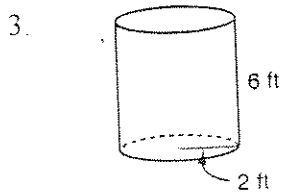
Volume = _____

Surface area = _____



Volume = _____

Surface area = _____



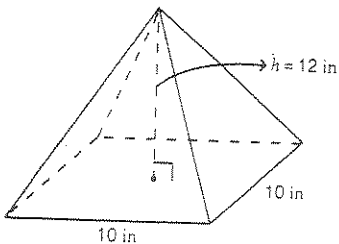
Volume = _____

Surface area = _____

4. Hint: use the Pythagorean Theorem to find the height of the triangular faces.

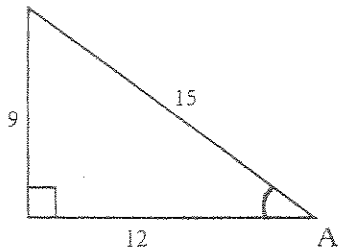
Volume = _____

Surface area = _____



Use trigonometric formulas to solve. Give exact answers. Leave in fraction form.

5. Find the trigonometric ratios:



$\sin A =$ _____

$\cos A =$ _____

$\tan A =$ _____

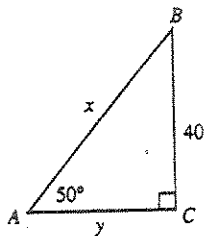
6. Use your knowledge of special triangles to find the following. Give exact answers, do not use a calculator:

$\sin 30^\circ =$ _____

$\cos 30^\circ =$ _____

$\sin 45^\circ =$ _____

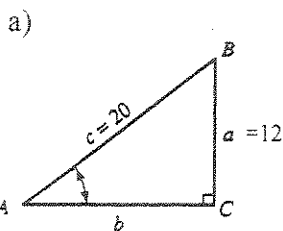
7. Find the length of x and y:



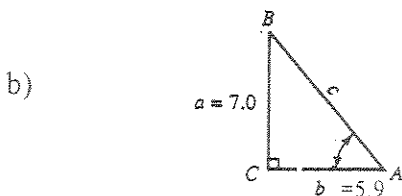
$x =$ _____

$y =$ _____

8. Find the measure of the indicated angles:



a) _____



b) _____

GEOMETRY & TRIGONOMETRY

Answers :

1. a) $\underline{180 \text{ cm}^3}$

b) $\underline{202 \text{ cm}^2}$

2. a) $\underline{\approx 2143.6 \text{ ft}^3}$

b) $\underline{\approx 804.2 \text{ ft}^2}$

3. a) $\underline{\approx 75.4 \text{ ft}^3}$

b) $\underline{\approx 100.5 \text{ ft}^2}$

4. a) $\underline{400 \text{ in}^3}$

b) $\underline{360 \text{ in}^2}$

5. $\sin A = \underline{\frac{9}{15}}$

$\cos A = \underline{\frac{12}{15}}$

$\tan A = \underline{\frac{9}{12}}$

6. $\sin 30^\circ = \frac{1}{2}$

$\cos 30^\circ = \frac{\sqrt{3}}{2}$

$\sin 45^\circ = \frac{\sqrt{2}}{2}$

7. $x = \underline{52.2}$

$y = \underline{33.6}$

8. a) $\underline{37^\circ}$

b) $\underline{50^\circ}$