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Assignment 1.5

1. Find the volume of each pyramid.

|  | a) a square pyramid |
| :---: | :---: |
|  | b) a rectangular pyramid |

2. Find the volume of this cone, to the nearest cubic foot.

|  | $V=\frac{1}{3} \pi r^{2} h$ |
| :---: | :---: |

3. Find the volume of this square pyramid to the nearest cubic inch.
(12 in. is the slant height. Use Pythagoras to find the pyramid height)

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| :---: | :---: |

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4. Find the volume of this cone, to the nearest cubic inch.
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5. The base of a square prism has a side length 8 cm ; it's height is 12 cm . The base of a square pyramid has side length 12 cm ; it's height is 17 cm . Which object has the greater volume?

| The ___ has the greater volume. |
| :--- |

6. Both a cylinder and a cone have volume 1525 cubic inches and base radius 7 in. Find the height of each object, to the nearest tenth of an inch.

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7. Find the volume of each object, to the nearest square unit.

|  | $S A=\frac{4}{3} \pi r^{3}$ |
| :---: | :---: |
|  |  |
|  | $S A=\frac{2}{3} \pi r^{3}$ (half a sphere) |
|  |  |

8. A solid cork ball is covered in gold plating. It has a diameter of 14 cm .

To the nearest cubic centimetre, what is the volume of cork?
9. A spherical fishbowl holds 381 cubic feet of water. What is the diameter of the fishbowl? (hint: to reverse $r^{3}$ take a cube root $-\sqrt[3]{ }$ )

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S A=\frac{4}{3} \pi r^{3}
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