Name Key Date

Chapter 7 Study Guide/PracticeTest A No Calculator

Find the square root(s).

1. $-\sqrt{49}$

-7

2. $\pm\sqrt{\frac{4}{16}} = \pm\frac{2}{4} = \pm\frac{1}{2}$

Find the cube root.

3. $\sqrt[3]{-8}$

-2

4. $\sqrt[3]{\frac{-1}{64}} = -\frac{1}{4}$

Evaluate the expression.

5. $3 + 5\sqrt{16}$

$3 + 5(4)$

$3 + 20$

23

6. $64 - (\sqrt[3]{27})^3$

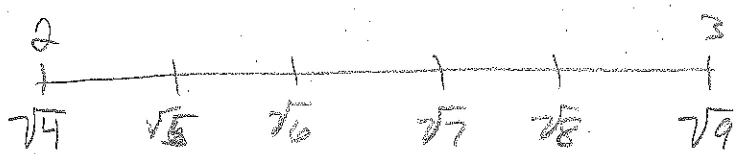
$64 - 27$

37

Estimate the square root to the nearest (a) integer and (b) thousandths.

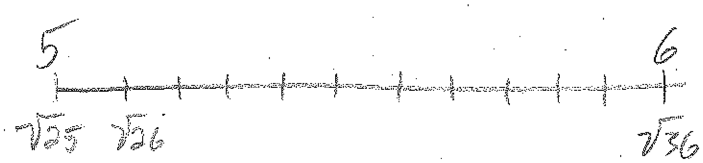
7. $\sqrt{8}$ ≈ 2.8

$2\frac{4}{5} \approx 2.8$



Which number is greater? Explain.

8. $\sqrt{26}$, 5.5



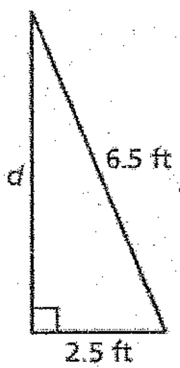
5.5 is greater

$\sqrt{26}$ will be just over 5, around $5\frac{1}{11}$ and $\frac{1}{11}$ is less than $\frac{1}{2}$.

Chapter 7 Study Guide/Practice Test A Calculator Allowed

Find the missing length of the triangle.

9.



$a^2 + b^2 = c^2$

$2.5^2 + b^2 = 6.5^2$

$6.25 + b^2 = 42.25$

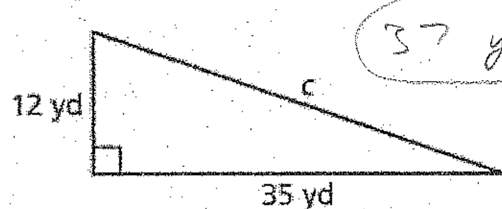
$-6.25 \qquad -6.25$

$\sqrt{b^2} = \sqrt{36}$

$b = 6$

6 feet

10.



37 yd

$a^2 + b^2 = c^2$

$12^2 + 35^2 = c^2$

$144 + 1225 = c^2$

$\sqrt{1369} = \sqrt{c^2}$

$37 = c$

Find the distance between the two points. Use $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$ **Write the exact and approximate answers.**

11. (-6, -7), (0, 0)

$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

$d = \sqrt{(0 - (-6))^2 + (0 - (-7))^2}$

$d = \sqrt{6^2 + 7^2}$

$d = \sqrt{36 + 49}$

$d = \sqrt{85}$

Tell whether the triangle with the given side lengths is a right triangle.

12. 14 km, 48 km, 50 km

longest side is hypotenuse

$a^2 + b^2 = c^2$

$14^2 + 48^2 = 50^2$

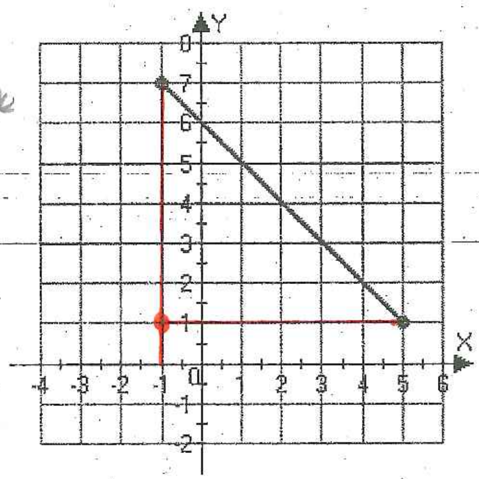
$196 + 2304 \stackrel{?}{=} 2500$

$2500 \stackrel{?}{=} 2500$ ✓

True, so yes. It is a right triangle

13. Find the distance *d*. Round your answer to the nearest tenth.

make a right triangle



$a^2 + b^2 = c^2$

$6^2 + 6^2 \stackrel{?}{=} c^2$

$36 + 36 \stackrel{?}{=} c^2$

$\sqrt{72} \stackrel{?}{=} \sqrt{c^2}$

$\sqrt{72} = c$

estimate

8   8/17   9

$\sqrt{64}$ $\sqrt{72}$ $\sqrt{81}$

$\approx 8\frac{8}{17}$

≈ 8.471