Name _____ Date _____ Pd_____

Chapter 10 (part 1) Bringing It All Together

(Real Numbers & Right Triangles) → **NO Calculators**

Find each square root.

_____ 1) $\sqrt{169}$

_____ 2) $-\sqrt{1{,}600}$

_____ 3) $\sqrt{64}$

_____ 4) $\pm\sqrt{529}$

_____ 5) $-\sqrt{225}$

_____ 6) $\sqrt{-652}$

_____ 7) $\pm\sqrt{144}$

_____ 8) $\sqrt{-81}$

_____ 9) $\sqrt{36m^2}$

_____ 10) $\pm\sqrt{196p^8}$

Estimate mentally each square root to the nearest integer.

_____ 11) $\sqrt{183}$

_____ 12) $\sqrt{84}$

_____ 13) $-\sqrt{402}$

_____ 14) $-\sqrt{38}$

_____ 15) $\pm\sqrt{78}$

_____ 16) $\pm\sqrt{116}$

_____ 17) $-\sqrt{257}$

_____ 18) $\sqrt{96}$

_____ 19) $\sqrt{29}$

_____ 20) $\sqrt{388}$

Finished?! Super ☺ Please see the teacher to exchange part one of the test for part two (where a calculator will be allowed) ☺

Name _____ Date _____ Pd_____

Chapter 10 (part 2) Bringing It All Together

(Real Numbers & Right Triangles) → **Calculators = OK!**

Find each square root to the nearest tenth.

_____ 21) $\sqrt{86}$

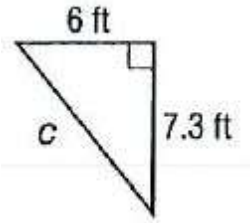
_____ 22) $\pm\sqrt{97}$

_____ 23) $-\sqrt{148}$

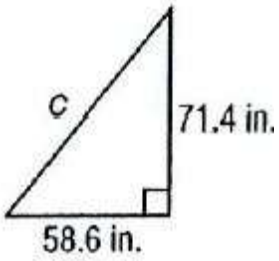
_____ 24) $\sqrt{53.9}$

Find the length of the hypotenuse of each right triangle.
Round to the nearest tenth. Show your formula and work ☺

_____ 25)



_____ 26)



If c is the measure of the hypotenuse, find each missing measure.
Round to the nearest tenth. Show your formula and work ☺.

27) $a = 48\ ;\ b = ?\ ;\ c = 61$

28) $a = ?\ ;\ b = 13\ ;\ c = 19$

The lengths of three sides of a triangle are given.
Determine whether each triangle is a right triangle.
Round to the nearest tenth. Show your formula and work ☺

29) $33\ m\ ;\ 36\ m\ ;\ 49\ m$

30) $6\ in.\ ;\ 8\ in.\ ;\ 10\ in.$

OVER⟶

Name _____ Date _____ Pd_____

Find the distance between each pair of points.
Round to the nearest tenth. Show your work ☺

31) $\boldsymbol{V}\ (2,\ -6)$; $\boldsymbol{W}\ (4,\ -7)$

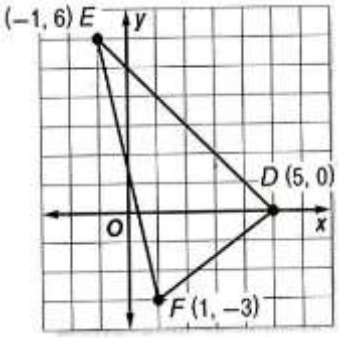
32) $\boldsymbol{J}\ \left(1\frac{1}{2},\ 3\right)$; $\boldsymbol{K}\ (5,\ 6\frac{1}{4})$

33) $\boldsymbol{G}\ (5,\ 10)$; $\boldsymbol{H}\ (-4,\ -3)$

34) $\boldsymbol{B}\ (7, 4.5)$; $\boldsymbol{C}\ (6.5,\ 3.25)$

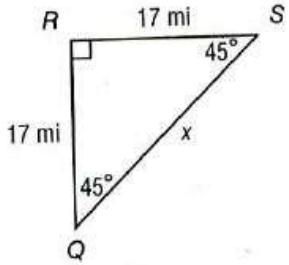
Classify the triangle by its sides. Then find the perimeter of the triangle.
Round to the nearest tenth. Show your work ☺

35)

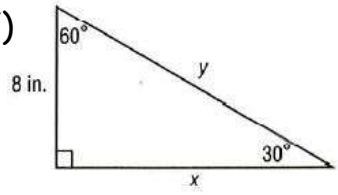


Find each missing measure

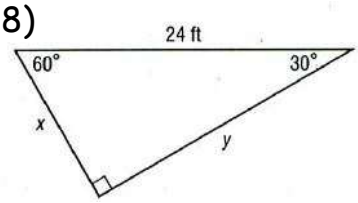
36)



37)



38)



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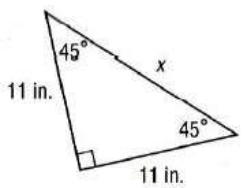

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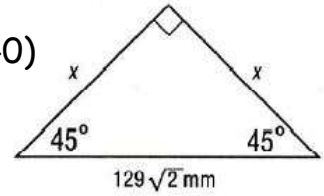

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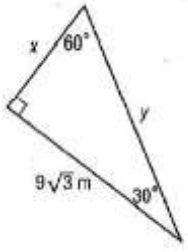


FINALLY DONE

Name _____ Date _____ Pd_____

Chapter 10 (part 1) Bringing It All Together

Answer Key → NO Calculators

Find each square root.

13 1) $\sqrt{169}$

−40 2) $-\sqrt{1{,}600}$

8 3) $\sqrt{64}$

±23 4) $\pm\sqrt{529}$

−15 5) $-\sqrt{225}$

not possible 6) $\sqrt{-652}$

±12 7) $\pm\sqrt{144}$

not possible 8) $\sqrt{-81}$

$6m$ 9) $\sqrt{36m^2}$

$\pm 14p^4$ 10) $\pm\sqrt{196p^8}$

Estimate mentally each square root to the nearest integer.

14 11) $\sqrt{183}$

9 12) $\sqrt{84}$

−20 13) $-\sqrt{402}$

−6 14) $-\sqrt{38}$

±9 15) $\pm\sqrt{78}$

±11 16) $\pm\sqrt{116}$

−16 17) $-\sqrt{257}$

10 18) $\sqrt{96}$

5 19) $\sqrt{29}$

20 20) $\sqrt{388}$

Name _____ Date _____ Pd_____

Chapter 10 (part 2) Bringing It All Together

Answer Key → Calculators = OK!

Find each square root to the nearest tenth.

9.3

21) $\sqrt{86}$

$\pm$9.8

22) $\pm\sqrt{97}$

−12.2

23) $-\sqrt{148}$

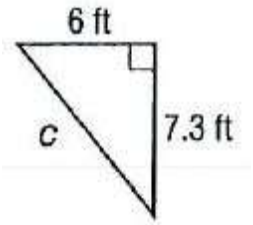
7.3

24) $\sqrt{53.9}$

Find the length of the hypotenuse of each right triangle.
Round to the nearest tenth. Show your formula and work ☺

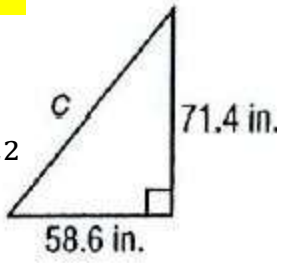
25) **$9.4\ ft = c$**

$a^2 + b^2 = c^2$
$6^2 + 7.3^2 = c^2$
$36 + 53.29 = c^2$
$\sqrt{89.29} = \sqrt{c^2}$



26) **$92.4\ in = c$**

$a^2 + b^2 = c^2$
$58.6^2 + 71.4^2 = c^2$
$3{,}433.96 + 5{,}097.96 = c^2$
$\sqrt{8{,}531.92} = \sqrt{c^2}$



If c is the measure of the hypotenuse, find each missing measure.
Round to the nearest tenth. Show your formula and work ☺.

27) $a = 48\ ;\ b = ?\ ;\ c = 61$

$a^2 + b^2 = c^2$
$48^2 + b^2 = 61^2$
$2{,}304 + b^2 = 3{,}721$
$-2{,}304 \qquad -2{,}304$
$\sqrt{b^2} = \sqrt{1{,}417}$

$b = 37.6$

28) $a = ?\ ;\ b = 13\ ;\ c = 19$

$a^2 + b^2 = c^2$
$a^2 + 13^2 = 19^2$
$a^2 + 169 = 361$
$-169 \quad -169$
$\sqrt{a^2} = \sqrt{192}$

$a = 13.9$

Determine whether each triangle is a right triangle.
Round to the nearest tenth. Show your formula and work ☺

29) $33\ m\ ;\ 36\ m\ ;\ 49\ m$

$a^2 + b^2 = c^2$
$33^2 + 36^2 = 49^2$
$1{,}089 + 1{,}296 = 2{,}401$
$2{,}385 \neq 2{,}401$ **No**

30) $6\ in.\ ;\ 8\ in.\ ;\ 10\ in.$

$a^2 + b^2 = c^2$
$6^2 + 8^2 = 10^2$
$36 + 64 = 100$
$100 = 100$ **Yes**

Name _____ Date _____ Pd_____

Find the distance between each pair of points.
Round to the nearest tenth. Show your work ☺

31) $V\ (2,\ -6)\ ;\ W\ (4,\ -7)$

$d = \sqrt{(4-2)^2 + (-7--6)^2}$

$d = \sqrt{(2)^2 + (-1)^2}$

$d = \sqrt{4+1}$

$d = \sqrt{5} \approx \mathbf{2.2}$

32) $J\left(1\frac{1}{2},\ 3\right)\ ;\ K\ (5,\ 6\frac{1}{4})$

$d = \sqrt{\left(5-1\frac{1}{2}\right)^2 + \left(6\frac{1}{4}-3\right)^2}$

$d = \sqrt{\left(3\frac{1}{2}\right)^2 + \left(3\frac{1}{4}\right)^2}$

$d = \sqrt{12.25 + 10.5625}$

$d = \sqrt{22.8125} \approx \mathbf{4.8}$

33) $G\ (5,\ 10)\ ;\ H\ (-4,\ -3)$

$d = \sqrt{(-4-5)^2 + (-3-10)^2}$

$d = \sqrt{(-9)^2 + (-13)^2}$

$d = \sqrt{81+169}$

$d = \sqrt{250} \approx \mathbf{15.8}$

34) $B\ (7, 4.5)\ ;\ C\ (6.5,\ 3.25)$

$d = \sqrt{(6.5-7)^2 + (3.25-\ 4.5)^2}$

$d = \sqrt{(-0.5)^2 + (-1.25)^2}$

$d = \sqrt{0.25 + 1.5625}$

$d = \sqrt{1.8125} \approx \mathbf{1.3}$

Classify the triangle by its sides. Then find the perimeter of the triangle.
Round to the nearest tenth. Show your work ☺

35) $DE = \sqrt{(5--1)^2 + (0-6)^2}$

$DE = \sqrt{(6)^2 + (-6)^2}$

$DE = \sqrt{36+36}$

$DE = \sqrt{72} \approx \mathbf{8.5}$

$EF = \sqrt{(1--1)^2 + (-3-6)^2}$

$EF = \sqrt{(2)^2 + (-9)^2}$

$EF = \sqrt{4+81}$

$EF = \sqrt{85} \approx \mathbf{9.2}$

$DF = \sqrt{(5-1)^2 + (0--3)^2}$

$DF = \sqrt{(4)^2 + (3)^2}$

$DF = \sqrt{16+9}$

$DF = \sqrt{25} \approx \mathbf{5.0}$

Scalene

$P = a + b + c$

$P = 8.5 + 5.0 + 9.2$

$P = \mathbf{22.7\ units}$

Find each missing measure

36) $\boldsymbol{x = 17\sqrt{2}\ mi}$ 37) $\boldsymbol{= 8\sqrt{3}\ in}$; $\boldsymbol{y = 16\ in}$ 38) $\boldsymbol{x = 12\ ft}$; $\boldsymbol{y = 12\sqrt{3}\ ft}$

39) $\boldsymbol{x = 11\sqrt{2}\ in}$ 40) $\boldsymbol{x = 129\ mm}$ 41) $\boldsymbol{= x = 9\ m}$; $\boldsymbol{y = 18\ m}$

FINALLY DONE