....Mornings LEFT OF SCHOOL :)

HAPPY FRIDAY!

Fri. 6/1 - Final Review

Mon. 6/4 - Final Review

Final's Schedule:

Tues. 6/5 - **FINAL EXAMS**

Wed. 6/6 - **FINAL EXAMS**

Tuesday, June 5, 2018

- Four Period day.
- Lunch with period 3 teacher.
- One hour, 25 minute classes

Period 1: Study Hall	8:05-9:30
Period 2	9:40-11:05
Period 3	11:15-1:10*
**Lunch to be determined*	
Period 4	1:20-2:45

Wednesday, June 6, 2018

- Four Period day.
- Lunch with period 6 teacher.
- One hour, 25 minute classes

Period 1: Finals	8:05-9:30
Period 5	9:40-11:05
Period 6	11:15-1:10*
**Lunch to be determined*	
Period 7	1:20-2:45

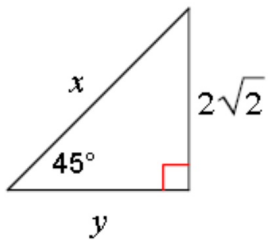
Class Plan

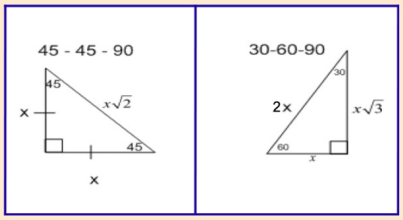
1. Warm-ups
   *Unit 4: Radicals & special rts.
   *Unit 5: Exponents
   *Unit 6: Quadratics
2. Notes from the past...
3. Practice

Unit 4: Warm-up:

1) Find the missing sides of the triangle.

33)

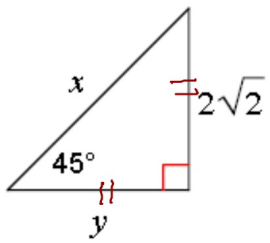


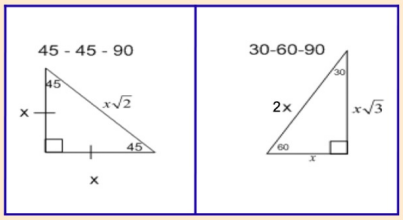


Unit 4: Warm-up:

1) Find the missing sides of the triangle.

33)





$y = 2\sqrt{2}$

$x = 2\sqrt{2} \cdot \sqrt{2} = 2 \cdot 2 = \boxed{4}$

Unit 5: Warm-up:

Simplify the expression. Your answer should contain only positive exponents.

16) $3^4 \cdot 3^{-2}$

23) $\dfrac{(2n^2)^2}{n \cdot 2n}$

Unit 5: Warm-up:

Simplify the expression. Your answer should contain only positive exponents.

16) $3^4 \cdot 3^{-2}$

$3^4 \cdot \frac{1}{3^2} = \frac{3^4}{3^2}$

$= 3^2 = \boxed{9}$

23) $\frac{(2n^2)^2}{n \cdot 2n}$

$= \frac{(2n^2)(2n^2)}{2n^2}$

$= \boxed{2n^2}$

Unit 6: Warm-up:

Solve for **x**.

28) $x^2 + 8 = 72$

Solve for **v** by factoring.

36) $v^2 - 6v - 16 = 0$

Unit 6: Warm-up:

Solve for **x**.

28) $x^2 + 8 = 72$

$\sqrt{x^2} = \sqrt{64}$

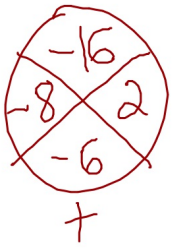
$x = \pm 8$

Solve for **v** by factoring.

36) $v^2 - 6v - 16 = 0$

$(v-8)(v+2) = 0$

$v = 8, v = -2$

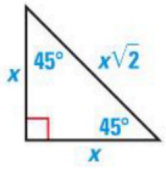


Concepts within Unit 4

Special Right Triangles

45°-45°-90° Triangle Theorem

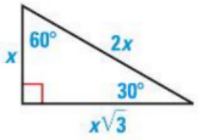
hypotenuse = leg • $\sqrt{2}$



30°-60°-90° Triangle Theorem

hypotenuse = 2 • shorter leg

longer leg = shorter leg • $\sqrt{3}$



Radicals

$$\sqrt{a} \cdot \sqrt{b} = \sqrt{a \cdot b}$$

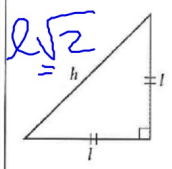
$$\sqrt{a} \cdot \sqrt{a} = \sqrt{a^2} = a$$

$\sqrt{72} = \sqrt{36} \cdot \sqrt{2} = 6\sqrt{2}$

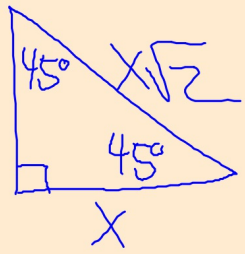
$\sqrt{48} = \sqrt{16} \cdot \sqrt{3} = 4\sqrt{3}$

$\sqrt{125} = \sqrt{25} \cdot \sqrt{5} = 5\sqrt{5}$

Investigation: Special Right Triangles

Leg	2	3	4	5	...	23456
Hypotenuse  	$2^2+2^2=h^2$ $4+4=h^2$ $\sqrt{8}=\sqrt{h^2}$ $\sqrt{4\cdot2}=h$ $2\sqrt{2}=h$	$3^2+3^2=h^2$ $9+9=h^2$ $\sqrt{18}=\sqrt{h^2}$ $\sqrt{9\cdot2}=h$ $3\sqrt{2}=h$	$4^2+4^2=h^2$ $16+16=h^2$ $\sqrt{32}=\sqrt{h^2}$ $\sqrt{16\cdot2}=h$ $4\sqrt{2}=h$	$5^2+5^2=h^2$ $25+25=h^2$ $\sqrt{50}=\sqrt{h^2}$ $\sqrt{25\cdot2}=h$ $5\sqrt{2}=h$		$23456\sqrt{2}$

45-45-90 X

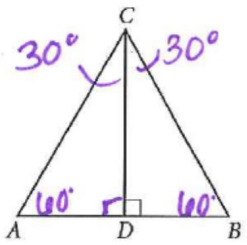


Notes

Investigation: Special Right Triangles

2. (30° - 60° - 90°)

(Part 1) Directions: ΔABC is equilateral. Using this fact, find the following measures:



$m\angle A = 60°$

$m\angle B = 60°$

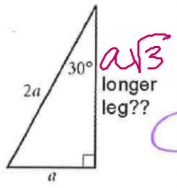
$m\angle ACD = 30°$ $(m\angle BCD)$

$m\angle ADC = 90°$ $(m\angle BDC)$

How are AC and AD related?

$AC = 2 \cdot AD$

Investigation: Special Right Triangles

Short Leg	1	2	5	6	½
Longer Leg 	$2^2=1^2+x^2$ $4=1+x^2$ $-1\ \ +1$ $3=x^2$ $\sqrt{3}=x$	$4^2=2^2+x^2$ $16=4+x^2$ $-4\ \ +4$ $\sqrt{12}=\sqrt{x^2}$ $\sqrt{4\cdot3}=x$ $2\sqrt{3}=x$	$10^2=5^2+x^2$ $100=25+x^2$ $-25\ \ -25$ $\sqrt{75}=\sqrt{x^2}$ $\sqrt{25\cdot3}=x$ $5\sqrt{3}=x$	$12^2=6^2+x^2$ $144=36+x^2$ $-36\ \ -36$ $\sqrt{108}=\sqrt{x^2}$ $\sqrt{36\cdot3}=x$ $6\sqrt{3}=x$	$1^2=(\frac{1}{2})^2+x^2$ $1=\frac{1}{4}+x^2$ $\frac{3}{4}\ \ -\frac{1}{4}$ $\sqrt{\frac{3}{4}}=\sqrt{x^2}$ $\frac{\sqrt{3}}{2}=x$
Hypotenuse	2	4	10	12	1

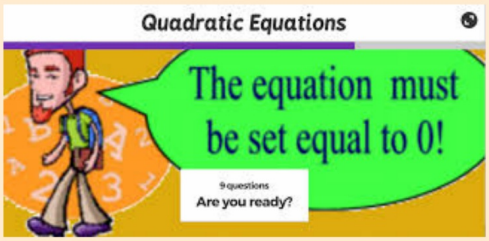
30-60-90

$x\sqrt{3}$ 30 $2x$ 60° x

Concepts within Unit 5 and 6

Properties of Exponents

product	$a^m \cdot a^n = a^{m+n}$
quotient	$\frac{a^m}{a^n} = a^{m-n}$
power	$(a^m)^n = a^{m \cdot n}$
inverse	$a^{-1} = \frac{1}{a}$
zero power	$a^0 = 1$

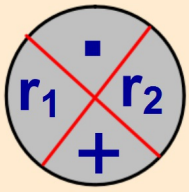


$ax^2 + bx + c = 0$

[a, b, c are real numbers]

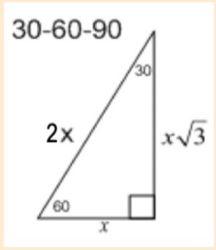
Factoring Quadratics:

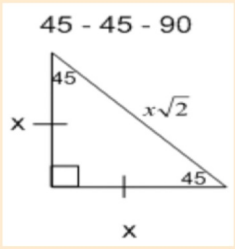
$(x - r_1)(x - r_2) = 0$



MYP Math 9 - Final Review

Do: Units 4, 5, and 6 Review Handout





product	$a^m \cdot a^n = a^{m+n}$
quotient	$\frac{a^m}{a^n} = a^{m-n}$
power	$(a^m)^n = a^{m \cdot n}$
inverse	$a^{-1} = \frac{1}{a}$
zero power	$a^0 = 1$

Done? Get Units 7 and 8 Handout

Unit 4: Radicals and Special Right Triangles

Simplify. (Remember... Factor out perfect squares 1,4,9,16,25,36,49,64,81,100)

21) $\sqrt{2} \cdot \sqrt{3}$

22) $\sqrt{3} \cdot \sqrt{3}$

Unit 4: Radicals and Special Right Triangles

Simplify. (Remember... Factor out perfect squares 1,4,9,16,25,36,49,64,81,100)

23) $\sqrt{8} \cdot \sqrt{10}$

24) $\sqrt{15} \cdot \sqrt{5}$

Unit 4: Radicals and Special Right Triangles

Simplify. (Remember... Factor out perfect squares 1,4,9,16,25,36,49,64,81,100)

25) $\sqrt{5} \cdot \sqrt{20}$

26) $\sqrt{2} \cdot \sqrt{8}$

Unit 4: Radicals and Special Right Triangles

Simplify. (Remember... Factor out perfect squares 1,4,9,16,25,36,49,64,81,100)

27) $\sqrt{147}$

28) $\sqrt{256}$

Unit 4: Radicals and Special Right Triangles

Simplify. (Remember... Factor out perfect squares 1,4,9,16,25,36,49,64,81,100)

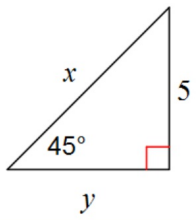
29) $\sqrt{576}$

30) $\sqrt{90}$

Unit 4: Radicals and Special Right Triangles

Find the missing side lengths. Leave your answers as radicals in simplest form.

31)



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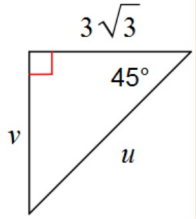
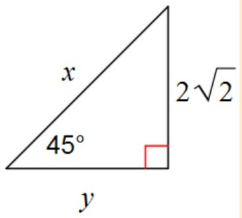


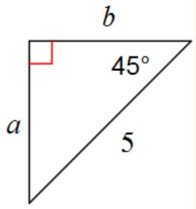
Unit 4: Radicals and Special Right Triangles

Find the missing side lengths. Leave your answers as radicals in simplest form.

33)



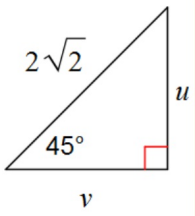
34)



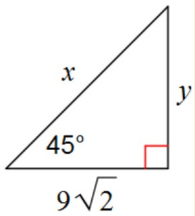
Unit 4: Radicals and Special Right Triangles

Find the missing side lengths. Leave your answers as radicals in simplest form.

35)



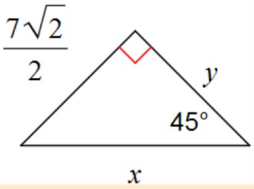
36)



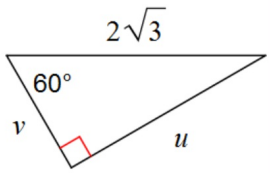
Unit 4: Radicals and Special Right Triangles

Find the missing side lengths. Leave your answers as radicals in simplest form.

37)



38)



Unit 4: Radicals and Special Right Triangles

Short answers to 21 - 38

21) $\sqrt{6}$ 22) 3 23) $4\sqrt{5}$ 24) $5\sqrt{3}$

25) 10 26) 4 27) $7\sqrt{3}$ 28) 16

29) 24 30) $3\sqrt{10}$ 31) $x=5\sqrt{2},\ y=5$

32) $u=3\sqrt{6},\ v=3\sqrt{3}$ 33) $x=4,\ y=2\sqrt{2}$ 34) $a=\frac{5\sqrt{2}}{2},\ b=\frac{5\sqrt{2}}{2}$

35) $u=2,\ v=2$ 36) $x=9,\ y=\frac{9\sqrt{2}}{2}$ 37) $x=7,\ y=\frac{7\sqrt{2}}{2}$ 38) $u=3,\ v=\sqrt{3}$

Unit 5: Exponentials

Simplify the numeric expressions. Your answer should contain only positive exponents.

12) $4^2 \cdot 4^4$

13) $4^2 \cdot 4^3$

Unit 5: Exponentials

Simplify the numeric expressions. Your answer should contain only positive exponents.

14) $(2^3)^2$

15) $(4^4)^2$

Unit 5: Exponentials

Simplify the numeric expressions. Your answer should contain only positive exponents.

17) $3^0 \cdot 3^2$

16) $3^4 \cdot 3^{-2}$

Unit 5: Exponentials

Simplify the numeric expressions. Your answer should contain only positive exponents.

18) x^2x^3

19) $2x^2 \cdot 2x^4$

Unit 5: Exponentials

Simplify the numeric expressions. Your answer should contain only positive exponents.

20) $(2p)^3 \cdot p^2$

21) $(n^4 \cdot n)^3$

Unit 5: Exponentials

Simplify the numeric expressions. Your answer should contain only positive exponents.

22) $\dfrac{k \cdot 2k^2}{\left(k^4\right)^2}$

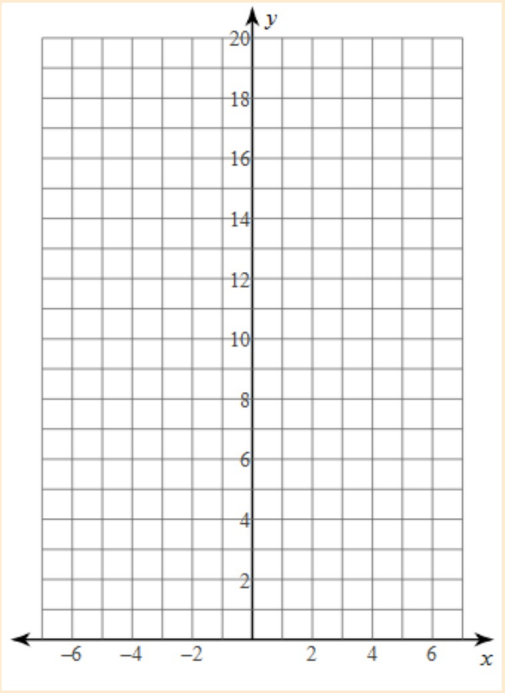
23) $\dfrac{\left(2n^2\right)^2}{n \cdot 2n}$

Unit 5: Exponentials

Sketch the graph of each function.

24) $y = 2^x$

X	Y



Unit 5: Exponentials

Short answers to 12 - 24

12) 4^6

13) 4^5

14) 2^6

15) 4^8

16) 3^2

17) 3^2

18) x^5

19) $4x^6$

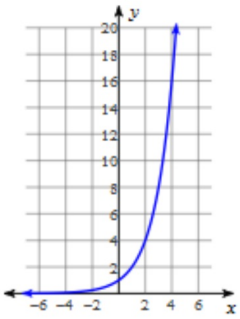
20) $8p^5$

21) n^{15}

22) $\frac{2}{k^5}$

23) $2n^2$

24)



Unit 6: Quadractics

Solve each quadratic equation.

25) $n^2 = 4$

26) $x^2 = 49$

Unit 6: Quadractics

Solve each quadratic equation.

27) $3k^2 = 300$

28) $x^2 + 8 = 72$

Unit 6: Quadractics

Solve each quadratic equation.

29) $5x^2 + 10 = 135$

Unit 6: Quadractics

Solve each quadratic equation.

30) $6m^2 - 9 = 153$

Unit 6: Quadractics

Solve each equation by factoring.

31) $k^2 + 10k + 21 = 0$

Unit 6: Quadractics

Solve each equation by factoring.

32) $v^2 + 14v + 48 = 0$

Unit 6: Quadractics

Solve each equation by factoring.

33) $n^2 - 11n + 30 = 0$

Unit 6: Quadractics

Solve each equation by factoring.

34) $r^2 - 7r + 10 = 0$

Unit 6: Quadractics

Solve each equation by factoring.

35) $n^2 + 3n - 40 = 0$

Unit 6: Quadractics

Solve each equation by factoring.

36) $v^2 - 6v - 16 = 0$

Unit 6: Quadractics

Solve each equation by factoring.

37) $x^2 - 35 = 2x$

Unit 6: Quadractics

Solve each equation by factoring.

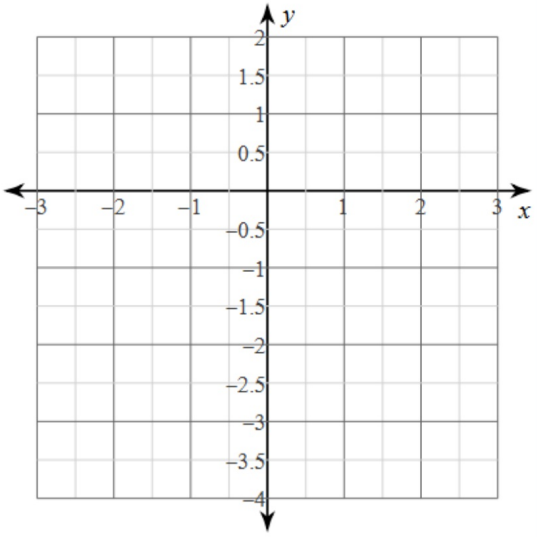
38) $x^2 - x = 56$

Unit 6: Quadractics

Sketch the graph of each function. Create a table of values to help graph the function.

X	Y

39) $y = x^2 - 2x - 2$



Unit 6: Quadractics

Short answers to 27 - 39

27) $\{10, -10\}$ 28) $\{8, -8\}$ 29) $\{5, -5\}$ 30) $\{3\sqrt{3}, -3\sqrt{3}\}$

31) $\{-3, -7\}$ 32) $\{-6, -8\}$ 33) $\{5, 6\}$ 34) $\{2, 5\}$

35) $\{-8, 5\}$ 36) $\{8, -2\}$ 37) $\{7, -5\}$ 38) $\{8, -7\}$

39)