## Unit 3 Day 15

### Midterm Review

## Warm Up: Midterm Review

1. Solve for x.



2. Solve  $5x^2 + 6x = 7$ . Give an exact answer.

3. H is in the interior of  $\angle IGF$ . You are given that m $\angle IGH = (2x + 5)$ , m $\angle FGH = 47$ , m $\angle IGF = (18x - 12)$ . Find m $\angle IGH$  and m $\angle FGI$ .

\*ADD two more. These are not in printed notes!! 4. Solve  $10^{x-3} = 100,000$ 

5. What additional information is required to prove  $\triangle CAB \cong \triangle LJK$  using the AAS Congruence postulate?

## Warm Up: Midterm Review

3

1. Solve for x.



2. Solve  $5x^2 + 6x = 7$ . Give  $-3 \pm 2\sqrt{11}$ an exact answer. 5

3. H is in the interior of  $\angle IGF$ . You are given that m $\angle IGH = (2x + 5)$ , m $\angle FGH = 47$ , m $\angle IGF = (18x - 12)$ . Find m $\angle IGH$  and m $\angle FGI$ . **m\angle IGH = 13 m\angle FGI = 60** 

\*ADD two more. These are not in printed notes!! 4. Solve  $10^{x-3} = 100,000$  **x** = **2** 

5. What additional information is required to prove  $\Delta CAB \cong \Delta LJK$  using AAS Congruence postulate?

 $\angle BCA \cong \angle KLJ$ 

#### Homework Answers Pg 28

1. a) A(2, 6), B(2, 12), C(-6, 2)  
b) A(-3, 1), B(-6, 1), C(-1, -3)  
c) A(-1, -3), B(-1, -6), C(3, -1)  
d) A(-1, 3), B(-1, 6), C(3, 1)  
e) A(-3, -1), B(-6, -1), C(-1, 3)  
2. 
$$x = 9$$
,  $y = 75^{\circ}$ ,  $z = 70^{\circ}$   
3.  $x = 4$ ,  $y = 6$   
4.  $x = 11/4$   
5. Translation right 4 down 2  
6. a) ASA  $\Delta PNO \cong \Delta MNL$   
b) ASA  $\Delta STR \cong \Delta VTR$ 

- c) SAS  $\triangle PNO \cong \triangle MNL$
- d) SSS  $\triangle HKM \cong \triangle LMK$

# Homework Answers Pg 29 7. (x + 1)(3x + 5) 8. $x = \frac{-7 \pm \sqrt{-71}}{2}$ 9. $x = \frac{-7 \pm 5\sqrt{13}}{6}$

10. 0 -> if discriminant is negative

- 1 -> if disciminant is zero
- 2 -> if disciminant is positive
- 11. If the discriminant is negative it will have two imaginary solutions
- 12. Rational -> when the discriminant is a perfect square
- 13. height: 53.64 ft time until impact: 2.42 sec

14. 
$$y = 0.75x^2 - 7.5x + 15.75$$

15. a)  $5x \sqrt[5]{x^2}$  b)  $4xy^3 z^7 \sqrt[3]{x^2}y$ 16. x = 21 17. (x - 6)/3 = y

18. r = 1.44%



## Homework For Tonight: Complete Midterm Review Packet!!

## STUDY FOR MIDTERM TOMORROW ©



