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| **Day 1 Placemat (Foundations skills needed for Unit 1)** |
| 1. **Solve:**
2. **Solve:**
3. **Solve:**
 | 1. **Segment Addition Postulate:**

In the segment below, AB = 2*x* + 9, BC = 4*x* – 7, AC = 38What do x and AB equal?*x* = \_\_\_\_\_\_ AB = \_\_\_\_\_\_\_\_\_\_\_ | 1. **Definition of a Midpoint:**

In the segment below, B is the midpoint of .AB = 4*x* + 2, BC = 6*x* - 8What do *x* and AC equal?*x* = \_\_\_\_\_\_ AC = \_\_\_\_\_\_ | 1. **Graph** the following lines.
2. x = 2
3. y = 4
4. y = x (Hint: this is y = 1x + 0)
5. y = -x (Hint: this is y = -1x + 0)

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| 1. **Classify the following angles:**

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| 1. **Angle Addition Postulate:**

SIDE NOTE: m1 is the shortcut way of writing “the measure of angle 1.” It’s like math texting – you write LOL instead of “laughing out loud,” math people write m1 instead of “the measure of angle 1.”What is *x* equal to?\_\_\_\_\_\_\_ | 1. **Angle Bisector:**

 bisects What are *x* and ?\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| For 10-11, suppose . For each set, solve for x, and find the length of each segment. 1. RS = 3x + 17, MN = 7x – 15 11. RS = x + 10, MN = 2x + 4

 x = \_\_\_\_\_\_ RS = \_\_\_\_ MN = \_\_\_\_ x = \_\_\_\_\_\_ RS = \_\_\_\_ MN = \_\_\_\_ |

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| 1. **Congruent ()** means “the same size and shape.” **Equal ( = )** refers to numerical values. Fill in the following blanks with  or = . Use the diagrams at the right to assist you.
 | 1. **If U is between T and B, find the value of x and the lengths of the segments. (Hint: Draw a picture for each problem with the given information and then write the equation to solve.)**

**\*\*between implies “on the same line as the other 2 points.**a. TU = 2x, UB = 3x + 1, TB = 21 b.TU = 4x-1, UB = 2x -1, TB = 5x x = \_\_\_\_\_\_\_TU = \_\_\_\_\_\_UB = \_\_\_\_\_\_x = \_\_\_\_\_\_\_TU = \_\_\_\_\_\_UB = \_\_\_\_\_\_x = \_\_\_\_\_\_\_TU = \_\_\_\_\_\_UB = \_\_\_\_\_\_TB = \_\_\_\_\_\_\_ |
| 1. 4 + 6 \_\_\_\_\_\_ 10
 | WVUZYX |
| 1. Triangle ZYX \_\_\_\_\_\_ Triangle WVU

 Note: this is typically written  ∆ ZYX \_\_\_\_\_\_ ∆ WVU |
|  |
| 1. 4x + 8 \_\_\_\_\_\_ 4(x + 2)

DABC5551. AB\_\_\_\_\_\_CD
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| 1.
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| Given what you know about triangles, right angles, and straight angles, solve for the variables:    | The angles around parallel lines have some really interesting properties…can you figure them out? Find the values of a, b, c, and d.Side Note: The little arrows on the two lines are Geometry notation for saying “these lines are parallel.”  |
| 1. **Let.**

ABC2x - 8x + 17 x = \_\_\_\_\_\_\_\_\_ AB = \_\_\_\_\_\_\_\_\_ BC = \_\_\_\_\_\_\_\_\_ AC = \_\_\_\_\_\_\_\_\_ | **Let , AC = 3x – 31** x = \_\_\_\_\_\_\_\_\_ x + 6AB = \_\_\_\_\_\_\_\_\_AB BC = \_\_\_\_\_\_\_\_\_ CAC = \_\_\_\_\_\_\_\_\_  |

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| **Day 1 Homework (Foundations skills needed for Unit 1)** |
| 1. **Solve:**
2. **Solve:**
3. **Solve:**
 | 1. **Segment Addition Postulate:**

In the segment below, AB = 3*x* + 9, BC = 4*x* – 7, AC = 37What do x and AB equal?*x* = \_\_\_\_\_\_ AB = \_\_\_\_\_\_\_\_\_\_\_ | 1. **Definition of a Midpoint:**

In the segment below, B is the midpoint of .AB = 4*x* + 12, BC = 6*x* - 8What do *x* and AC equal?*x* = \_\_\_\_\_\_ AC = \_\_\_\_\_\_ | 1. **Graph** the following lines.
2. x = 4
3. y = 2
4. y = x (Hint: this is y = 1x + 0)
5. y = -x (Hint: this is y = -1x + 0)

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| 1. **Angle Addition Postulate:**

SIDE NOTE: m1 is the shortcut way of writing “the measure of angle 1.” It’s like math texting – you write LOL instead of “laughing out loud,” math people write m1 instead of “the measure of angle 1.”What is *x* equal to?\_\_\_\_\_\_\_ | 1. **Angle Bisector:**

 bisects What are *x* and ?\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| For 9-10, suppose . For each set, solve for x, and find the length of each segment. 1. RS = 6x + 17, MN = 7x – 15 10. RS = 2x + 10, MN = 9x + 4

 x = \_\_\_\_\_\_ RS = \_\_\_\_ MN = \_\_\_\_ x = \_\_\_\_\_\_ RS = \_\_\_\_ MN = \_\_\_\_ |