

DO NOW

$$LCD = 15$$

$$\text{Solve: } \frac{a}{3} + \frac{3a}{5} = 28$$

$$15\left(\frac{a}{3} + \frac{3a}{5}\right) = 15(28)$$

$$5\frac{15}{1}\left(\frac{a}{3}\right) + \frac{3}{1}\frac{15}{5}(3a) = 15(28)$$

$$5a + 9a = 420$$

$$14a = 420$$

$$a = \frac{420}{14}$$

$$\boxed{a = 30}$$

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Chapter 2 Review

Solving Equations

- Like a balanced scale – what is done to one side must be done to the other side.
- Undo operations in reverse order
- Use inverse operations to undo
- Eliminate parentheses first
- Get all variable terms to one side and constants to the other side
- Combine like terms ONLY when they are on the same side of the equals
- Multiply both sides of the equation by the LCD to eliminate fractions
- Proportions – remember cross multiply only if fraction = fraction
- CHECKS!!!

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Solving Inequalities

- Just like equations – EXCEPT reverse the inequality sign when multiplying or dividing by a negative number.
- Remember if you are dividing by a negative number on both sides the negative number will be on the bottom of the fraction
- Remember to maintain the inequality sign – don't switch to equals

<u>Ratio</u>	vs	<u>Rate</u>
Same units		different units
fraction answer		decimal answer
no label		label: ___ per ___

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Word Problems

1. Read the problem carefully (notes, diagrams, pictures etc.)
 2. Set up the variable (let $x = \dots$)
 3. Set up the equation (use formulas etc.)
 4. Solve the equation
 5. Answer and check
- Focus on the set up – not the solution
 - Break the problem into smaller pieces (by sentences)
 - Identify ALL items using the variable BEFORE working on the equation
 - Remember your keywords when doing straight translation
***less than, more than, subtracted from – switch order!!!!

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- PERIMETER – formulas, pictures
- DISTANCE – charts, $d = rt$, clarify relationship of distances
- COIN/MONEY – number of vs. value of...don't forget to include the values
- RATIO – use let $x =$ ratio factor
- PROPORTION – set up basic ratio set up
- FRACTION – identify the numerator, denominator and fraction
- CONSECUTIVE INTEGER – remember to use given basic set ups:
Consecutive integers: $x, x + 1, x + 2, x + 3 \dots$
Consecutive even or odd integers: $x, x + 2, x + 4 \dots$
- NUMBER PROBLEMS – straight translation
- INEQUALITY – use keywords to pick inequality sign and be careful when answering the question

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HOMEWORK

Worksheet - HW Review 2

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