Math STAAR Tips

1. Read each problem carefully. Highlight or underline important information. Take your time! Show your work!
2. THINK about each problem.
   1. Eliminate unreasonable answer choices.
   2. WORK BACKWARDS from answer choices. (EX. Substitute table values into equation answer choices)
   3. Use the MATHEMATICS CHART to look up formulas and measurements.
   4. Ask yourself: DOES MY ANSWER MAKE SENSE?
   5. Double check all “NOT HERE” answers.
3. Remember to use problem solving strategies:
   1. DRAW A PICTURE – especially for fractions!
   2. Use a T-CHART to organize information and to set up measurement conversions!
   3. Look for PATTERNS!
4. Label ratios and proportions with words first! (Think of the box with a tail graphic organizer.) Words

Minute

1. For circles, cylinders, and cones, the formulas include pi (π). Pi is approximately 3.14 – just use 3 to estimate. (Use 3.14 if a 0-9 bubble answer is required or if two multiple choice answers are very close.)
2. The radius of a circle is half of the diameter. The circumference is the distance around the outside of a circle. It is about 3 times the diameter. Think about wrapping the diameter around the outside of a circle about 3 times. Also, circumference is about 6 times the radius.
3. When adding or subtracting fractions, always find a common denominator first.
4. When adding or subtracting decimals, think of money and line up the decimal point.
5. Think about money when working with percents.
   1. You can substitute a ¢ sign for the % sign.

6% ----Think 6¢ ----Write 0.06 (“point zero 6”)

60% ---Think 60¢---Write 0.60 (“point six zero”) or .6 (“point six”)

* 1. Remember that 1 whole is 100%; percent means per hundred.
  2. To write ⅛ as a %, just divide 100 by 8. 100 ÷ 8 = 12.5, so ⅛ = 12.5%. (Think of the fraction circles used and drawn in class.)
  3. To find percentage, think sales tax and multiply!

1. Remember these words:
   1. Probability = # of ways you win

Total #

Compound probability – find each probability & multiply

Examples: The probability of getting a 5 on one roll of die is 1/6.

The probability of getting Tails – Tails when flipping a coin is ¼.

* 1. **Mean** – average; **Median** – middle number (arrange #s first)

**MOde** – MOst; **Range** – big # - small #

c.) **Perimeter** is the distance around ~ think about border or fence

**Area** is the inside ~ think about tile, carpet, cover

**Volume** ~think “fill up” an aquarium, sandbox, etc.

**Surface Area** is the sum of all areas ~ think wrap a present; material

needed to make a basketball, bookshelf, etc. **(8th grade)**

1. Scale factor – new over original

1. The coordinates of a point are (x,y) ~ Think alphabetical order.

To plot a point, you move **OVER** first, then you move up or down.

13. Angle Information

* 1. The total measure of the angles in a triangle is 180˚.
  2. A straight line is also 180˚.
  3. The total measures of the angles in a quadrilateral is 360˚.
  4. Vertical angles are congruent.
  5. **Acute** – less than 90˚; **obtuse** – greater than 90˚; **Right** = 90˚.
  6. **Complementary angles** add up to 90˚ (**c**orner)
  7. **Supplementary angles** add up to 180˚ (**s**traight line)
  8. **Triangles –** Acute, Obtuse, Right & Isosceles, Scalene, Equilateral

1. **Parallel lines** never intersect; **perpendicular lines** intersect at right angles.
2. 5² = 5 x 5, so it equals 25 (think area of a square)

5³ = 5 x 5 x 5, so it equals 125. (think volume of a cube)

Similarly √25 = 5; √36 = 6; √32 is approximately 5.7

1. Polygons Pentagon (5); Hexagon (6); Octagon (8); Decagon (10)
2. Prime factors - build a factor tree; (PRIME vs. COMPOSITE)
3. Reflection – flip; Rotation – turn; translation – slide; dilation – new over old
4. Congruent and similar figures – set up ratios of corresponding sides
5. **Scientific notation** – a)# between one and ten b) count spaces to get there
6. **Order of operations** – (baseball field or PEMDAS)
7. **Unit Rates** – a ratio based on one (mpg; words per minute; mph) (**7th /8th grade)**
8. **GCF** – think factor pairs; **LCM** – list multiples 5, 10, 15, etc.