

Data Sufficiency

Read the problem through and attempt to visualize what is **needed**. Visualize how the units must cancel to arrive at the desired units. How many variables and **how many unknowns**? You need one equation for each unknown. If necessary, make a solution table or write down a formula, but **never actually solve the problem**. You need to use these problems to **pick up speed**, since you should be able to answer them faster than the standard problems. At a minimum, when you are confused, you have a better shot at guessing. **Memorize** the A-E answer options.

26A – Rotations = meters/diameter, given meters and **need diameter**.

27E – **Need number of integers and beginning value**. The fact that they are odd tells you that they are 2 apart.

28D – Given frames and want minutes, so we **need minutes or seconds per frame**.

29C – Need average miles per gallon, which means we **need** $\frac{\text{total_miles}}{\text{total_gallons}}$. Option (1)

gives miles and total cost, so we now need cost per gal to get cost, $\frac{\text{cost}}{\left(\frac{\text{cost}}{\text{gal}}\right)} = \text{gal}$. This is

given in (2).

30B – **Need to know if $x > y$** . Option (1) only states $\frac{x}{y} > \frac{1}{y^2}$, which could be very big or very small. Option (2) gives us what we need, namely that $x > y$.

31A – **Need to know longest side**, so we need to know the relative or actual lengths of the sides. Option (2) doesn't help because we still don't what the relation between x and y is.

32E – Don't get bogged down on this one. **Need to know either a formula or a range** within which p could lie. It seems pretty obvious that neither of the choices give enough information. Mark and go.

33C – **Need to know the weight of a photograph and a negative**. Once again, common sense should tell you that both of them together will get you there.

34B – **Need to l and w or $l+w$** . Either one works.

35B – **Need to know x/y** . You should immediately see that (2) will do it. Mark and go.

36C – To determine if the numbers are consecutive you need to know two things: are they **increasing** and do they **differ from each other by 1**.

37A – This one is **tricky** because you have to be able to deduce that $-x = x$ implies that $x=0$. At first glance it just seems like nonsense.

38B – This one is **tricky** as well. You need to know how to divide the money among four people. Option (1) is clearly not enough and you have to do some set up to realize that (2) alone is sufficient.

39B – You are given the total and you have three unknowns: b , n , p . At first glance you would think you need to at least two of the variables. But if you knew the **total of b and p** , you could then find n , which is the case with Option (2). The equation becomes $b+.75b=35$. I am going to do the arithmetic here just to show you another speed gift. We what $b=35/1.75$, but notice that $.75=7/4$, so that $35/1.75 = 35/(7/4) = 5 \times 4 =20$.

40A – Another **tricky** one. You need to test each combo of $+$, $-$, \times , and \div to insure that only one operator produces that answer. If more than one produces the answer, then that cannot be sufficient. Note that $1+0 = 1$ and $1-0 = 1$, so you can't be sure if the operator is $+$ or $-$.

41C – Need to know the **before and after price** or one of the **prices and percent or amount reduction**.

42A – This one is so obvious it causes to you question your **common sense**. Mark and go.

43B – This is a gift. Mark and go.

44A – At first glance it looks like (2) might work. A quick look at the equation $f+hc=3.75$, tells you there is not enough. Of course, writing this equation takes more time than you want to spend. Try and reason directly to the answer.

45C – You **should just know this one**. If r and s are divisible by 3, then $r+s$ must be divisible by 3 ($r=3m$, $s=3n$, $r+s=3(m+n)$). Note, however, that $r+s$ divisible by 3 does mean that r and s are divisible by 3. Consider $(5+1)/3$, $5/3$, $1/3$.

46E – Should get here fast.

47D – You know $x+y=4$ so you need either x or y , **but not both**.

48D – Remember that the direction of an **inequality changes** when multiplying or dividing by a **negative number**.

49E – This one challenges your ability to **read carefully**. You have to catch the difference in the between “homes **built** in City X” and homes in City X.” Is this a math test or a reading test?

50B – Simple algebra.