

1. Give the following information for each problem below: (I) the number sentence it represents, written in the most meaningful arrangement, (II) the scenario it requires for its operation, and (III) whether it requires objects or measurements.
 - (a) In an election, 5 people are running for president and 3 people are running for vice president. How many different pairs of candidates can be elected to the two offices?
 - (b) Kathy gets off work at 5pm, and it's 2pm now. How long until she can go home?
 - (c) Mrs. Green wants to seat her 30 students evenly in 5 rows. How many children sit in each row?
 - (d) The automatic car wash can process one car every 5 minutes. How many cars can they process in 30 minutes?
 - (e) Concert tickets cost \$8 each. How much would 3 tickets cost?
 - (f) A "flat" of eggs holds 6 rows of 8. How many eggs are in a flat?
 - (g) An index card is 3 in. by 5 in. What is its area?
 - (h) The 120-member senior class is taking a trip to Niagara Falls. How many buses must they charter that hold 30 people apiece?
 - (i) Jeff is saving to buy Carrie an anniversary ring that costs \$500. He has \$350 saved up already. How much more does he need?
 - (j) Each person in the United States creates about 6 pounds of garbage per day. How much solid garbage does a person dispose of in a week?
 - (k) It takes 2 pecks of tomatoes to make one quart of juice. How many quarts of juice can be made from 18 pecks of tomatoes?
 - (l) Pam had to set her watch forward 6 hours to go to Hawaii, then back 3 when stopping in San Francisco. How many hours ahead of home is her watch right now?
 - (m) It's 3-1/2 hours from here to Cincinnati and another 4-1/2 from there to Nashville. How long does it take to get from here to Nashville by that route?
 - (n) Ellen's worked at SRU for 18 years and David's been here 13. How much longer has Ellen worked here than David?
 - (o) A car travels 180 miles in 4 hours. What is its average speed?
 - (p) The temperature rose 5 degrees this morning and another 8 this afternoon. How much warmer is it now than it started?
2. Make up an *original* word problem that requires each of the following computations, scenarios, and settings ("original" means you can't just change the numbers in our in-class examples):
 - (a) $15 \div 3$, partitioning, objects
 - (b) $6 + 10$, combine, measurements
 - (c) $9 - 7$, missing addend, objects
 - (d) 6×4 , Cartesian product, objects
 - (e) $20 \div 5$, partitioning, measurements
 - (f) $13 - 4$, take away, measurements
 - (g) 9×3 , array, objects
 - (h) $16 - 10$, comparison, measurements
 - (i) $16 \div 2$, repeated subtraction, objects
 - (j) 10×3 , repeated addition, measurements
 - (k) $18 \div 9$, repeated subtraction, measurements

1.
 - (a) $5 \times 3 = 15$, Cartesian product, objects
 - (b) $5 - 2 = 3$, missing addend, measurements (time works better that way)
 - (c) $30 \div 5 = 6$, partitioning, objects
 - (d) $30 \div 5 = 6$, repeated subtraction, measurements (time)
 - (e) $8 \times 3 = 24$, repeated addition, objects or measurements (small amounts of money)
 - (f) $6 \times 8 = 48$, array, objects
 - (g) $3 \times 5 = 15$, area, measurements
 - (h) $120 \div 30 = 4$, repeated subtraction, objects
 - (i) $500 - 350 = 150$, missing addend, measurements (large amounts of money)
 - (j) $6 \times 7 = 43$, repeated addition, measurements
 - (k) $18 \div 2 = 9$, repeated subtraction, measurements
 - (l) $6 - 3 = 3$, take away, measurements
 - (m) $3\frac{1}{2} + 4\frac{1}{2} = 8$, combine, measurements
 - (n) $18 - 13 = 5$, comparison, measurements (calendar/time)
 - (o) $180 \div 4 = 45$, partitioning, measurements
 - (p) $5 + 8 = 13$, combine, measurements
2.
 - (a) I gave 15 total cat treats out to my three kittens. How many did each kitten gobble up?
 - (b) Chef Tilda dumped 6 pounds of sugar into her giant mixer, then poured in another 10 pounds of fine cake flour. How many pounds of dry ingredients is the mixer mixing?
 - (c) Andy's favorite shirt is supposed to have nine buttons on it, but after he got home from playing, it only had 7. How many buttons are missing?
 - (d) I'm decorating cupcakes for my third graders. If I pick 1 of six colors of frosting and 1 of 4 colors of sprinkles, how many different looking cupcakes can I take to school?
 - (e) The winner in a watermelon-eating contest ate 5 whole melons in 20 minutes. How fast was he eating each melon?
 - (f) My 13-foot tall flagpole is too unwieldy to use. If I cut off 4 feet, how tall will it be then?
 - (g) The band's woodwind section marched in 3 rows of nine people each. How many woodwind players are there?
 - (h) Jackie has 16 inches of Bubble Tape, and Kyle has 10. How much longer is Jackie's Bubble Tape?
 - (i) Sixteen kids want to compete in the three-legged race. How many teams of two will that make?
 - (j) The dump truck hauled three 10-ton loads of gravel to the construction site. How much gravel did they dump?
 - (k) I have an 18-foot rope to cut into 9-foot jumprobes. How many can I make?