

## HW08: Word Problems

**Write each as an algebraic expression.**

- |                             |                                       |
|-----------------------------|---------------------------------------|
| 1) twice $q$ is equal to 36 | 2) $t$ increased by 11 is equal to 23 |
| 3) $y$ cubed is equal to 13 | 4) the quotient of 55 and 5           |
| 5) 10 more than 3           | 6) the 3rd power of $n$ is 28         |
| 7) 23 decreased by $x$      | 8) $n$ divided by 2                   |

**Write each as a verbal expression.**

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|-----------------------|--------------------|
| 9) $k - 4 = 20$       | 10) $\frac{18}{2}$ |
| 11) $\frac{k}{7}$     | 12) $m \cdot 5$    |
| 13) $p - 3 = 16$      | 14) $w - 6$        |
| 15) $n \cdot 10 = 26$ | 16) $n - 10 = 48$  |

**Define variables, write and solve an equation, and provide an answer that makes sense. Although I'm sure you can answer these questions without writing an equation, practice using the four-step process discussed in class (or on the PowerPoint).**

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|--|--|
| 17) The wind blew away 4 of your muffins. That was $\frac{2}{9}$ of all of them! With how many did you start?  | 18) Danielle spent \$48 on batteries. If they cost \$6 / pack, how many packs did she buy?   |
| 19) Elisa wants to buy a radio for \$41.30. She gives the cashier \$60. How much change does she receive?  | 20) Batteries cost \$8 / pack. How many packs did Pranav buy if he spent \$40?   |
| 21) Four workers are hired to seed a field by hand. Each is given a plot which is $10 \times 5$ feet in size. What is the total area of the field?               | 22) Tissues cost \$2 / box. How many boxes did Huong buy if she spent \$14?  |
| 23) Seven workers are hired to harvest strawberries from a field. Each is given a plot which is $10 \times 8$ feet in size. What is the total area of the field? | 24) How old is Castel if he will be 19 years old in six years?   |
| 25) At a restaurant, Krystal and her eight friends decided to divide the bill evenly. If each person paid \$7, then what was the total bill?                     | 26) At a restaurant, Rob and his 5 friends decided to divide the bill evenly. If each person paid \$10, then what was the total bill?        |
| 27) The wind blew away 18 of your muffins. That was $\frac{3}{8}$ of all of them! How many are left?   | 28) At a restaurant, Maria and her nine friends decided to divide the bill evenly. If each person paid \$8.64, then what was the total bill? |
| 29) Diapers cost \$7 / package. How many packages did Matt buy if he spent \$21?   | 30) DeShawn wants to buy a shirt that costs \$72.11. How much change does he receive if he gives the cashier \$75?                           |