

Some quick notes:

# Solving Equations 2

Name: \_\_\_\_\_

Key

## 1 Step Equations - CLT division (1)

### Problem-Solving Situation

James is selling candy bars to raise money for the local homeless shelter. James sold 4 candy bars on Tuesday and 3 candy bars on Thursday. James raised a total of \$14 for the week. How much did each candy bar cost?

1)  $14 = 4c + 3c$

$c = 2$

7)  $50 = 8s + 2s$

$s = 5$

13)  $27 = 5j + 4j$

$j = 3$

2)  $4b + 2b = 24$

$b = 4$

8)  $3r + r = 20$

$r = 5$

14)  $4m + 2m = 36$

$m = 6$

3)  $25 = v + 4v$

$v = 5$

9)  $14 = 7x + 7x$

$x = 1$

15)  $48 = p + 7p$

$p = 6$

4)  $7f + f = 40$

$f = 5$

10)  $6y + 2y = 32$

$y = 4$

16)  $6h + h = 49$

$h = 7$

5)  $36 = 9m + 3m$

$m = 3$

11)  $24 = p + 3p$

$p = 6$

17)  $40 = 4t + 6t$

$t = 4$

6)  $n + n = 18$

$n = 9$

12)  $2n + 10n = 48$

$n = 4$

18)  $2s + 4s = 30$

$s = 5$

22) Kilee and Avery decided to prepare for volleyball tryouts by running a certain number of miles each day. Kilee followed the program for 4 days. Avery got sick and could only run 2 days. Together they ran a total of 24 miles. What was the daily number of miles each girl ran? *Hint: Let  $m$  stand for the daily number of miles*

$$\frac{4 \cdot m}{\text{Kilee's days} \quad \text{Kilee's miles}} + \frac{2 \cdot m}{\text{Avery's days} \quad \text{Avery's miles}} = \frac{24}{\text{total miles}}$$

$$4m + 2m = 24 \Rightarrow m = 4 \text{ mi/day}$$

$$6m = 24$$

23) Devin collects both Brittany Spears and Hannah Montana music CDs. He has 5 CDs in his Brittany Spears collection and 3 CDs in his Hannah Montana collection. In his collection, he has a total of 80 songs. If each CD has the same number of songs, how many songs are on each CD? *Hint: Let  $s$  stand for the daily number of songs*

$$\frac{5 \cdot s}{\text{BS CDs} \quad \text{BS songs}} + \frac{3 \cdot s}{\text{HM CDs} \quad \text{HM songs}} = \frac{80}{\text{total songs}}$$

$$5s + 3s = 80 \Rightarrow s = 10 \text{ songs per CD}$$

$$8s = 80$$

24) Mrs Sharkey and Mrs Fauson decided to prepare for the school rollerblading race by rollerblading a certain number of miles each day. Mrs Fauson practiced for 5 days. Mrs Sharkey attended a family reunion downriver and could only practice for 3 days. Together, Mrs Sharkey and Mrs Fauson rollerbladed 32 miles. How many miles did they rollerblade per day?

$$\frac{3 \cdot m}{\text{Sharkey's days} \quad \text{Sharkey's miles}} + \frac{5 \cdot m}{\text{Fauson's days} \quad \text{Fauson's miles}} = \frac{32}{\text{total miles}}$$

$$3m + 5m = 32 \Rightarrow m = 4 \text{ mi/day}$$

$$8m = 32$$

25) Fred and Barney both collect sets of baseball cards. Over a six month period of time, Fred collected 5 sets of cards and Barney collected 4 sets of cards. Sets have the same number of cards. Together they collected a total of 81 cards. How many cards were in each set?

$$\frac{5 \cdot m}{\text{Fred set} \quad \text{\# of cards per set}} + \frac{4 \cdot m}{\text{Barney set} \quad \text{\# of cards per set}} = \frac{81}{\text{total cards}}$$

$$5m + 4m = 81$$

$$9m = 81$$

$$m = 9 \text{ cards per set}$$

26) Homer and Marge volunteered some of their free time to work in a nursing home delivering magazines to the people there. Homer was able to work on 3 different days while Marge worked on 5 different days. All total, Homer and Marge worked 24 hours. If Homer and Marge worked the same amount of hours each day, how many hours did Homer and Marge work each day?

$$\frac{3 \cdot h}{\text{Homer \# Days} \quad \text{\# of hrs}} + \frac{5 \cdot h}{\text{Marge \# of Days} \quad \text{\# of hrs}} = \frac{24}{\text{Total hrs worked}}$$

$$3h + 5h = 24$$

$$8h = 24$$

$$h = 3 \text{ hrs per day}$$

27) Dr Doofus collects both comic books and car magazines. He has organized them so that he has 3 boxes of comic books and 2 boxes of car magazines. He has 55 comic books and magazines in all. If each box has the same number of comic books or magazines in them, how many comic books or magazines are in each box?

$$\frac{3 \cdot x}{\text{boxes comics} \quad \text{\# of comic books}} + \frac{2 \cdot x}{\text{boxes of car mag} \quad \text{\# of comic books}} = \frac{55}{\text{Total \# of comic and car magazines}}$$

$$3x + 2x = 55$$

$$5x = 55$$

$$x = 11 \text{ in each}$$