

M7 Chapter 6 Test [Choose 5 of the first 7 problems and choose 7 of the last 9 problems]

1. Maya selected *Life and Times* to read for English. By March 3<sup>rd</sup> she had read 78 pages. If she starts on March 4<sup>th</sup> and reads the same number of pages each day she will be done by the end of the day on March 12. How many pages does she need to read each day?

| Book          | Number of Pages |
|---------------|-----------------|
| City Streets  | 387             |
| Life and Time | 411             |
| Myopia        | 435             |

4  
5  
6  
7  
8  
9  
10  
11  
12  
} 9 DAYS

$$\begin{array}{r} 411 \\ - 78 \\ \hline 333 \end{array}$$

$$\frac{333}{9} = 37$$

37 PAGES PER DAY

2. What value of  $x$  makes this equation true?

$$3x - 9 = 24$$

$$+9 \quad +9$$

A. 30

B. 21

C. 11

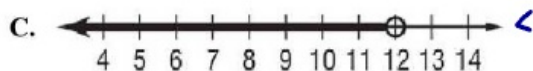
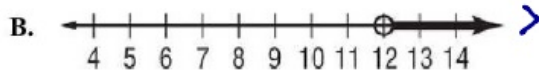
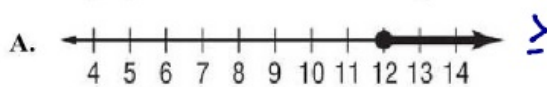
D. 5

$$\frac{3x}{3} = \frac{33}{3}$$

$$x = 11$$

C

3. Joshua spends \$0.25 for every song he downloads to his cell phone. Which of the following represents the number of songs he can download if he spends at least \$3?



D. Not enough information is given.

A

4. For a warm up, Samuel runs 200 yards less than half the maximum distance he can run. This is represented by the equation,  $r = \frac{1}{4}x - 200$  where  $x$  represents the maximum distance he can run and  $r$  represents the distance run during his warm up. If Samuel ran 1,200 yards during his warm up, what is the maximum distance he can run?

A. 6,000 yards

B. 5,600 yards

C. 5,200 yards

D. 4,800 yards

$$\begin{array}{r} 1200 = \frac{1}{4}x - 200 \\ + 200 \quad + 200 \end{array}$$

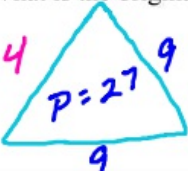
$$4 \cdot 1,400 = \frac{1}{4}x \cdot 4$$

$$5,600 = x$$

B

|   |   |
|---|---|
| <p>5. Which of the following problems can be solved using the equation <math>x + 9 = 15</math>?</p> <p>A. David's portion of the bill is \$9 more than Jaleel's portion of the bill. If Jaleel pays \$15, find <math>x</math>, the amount in dollars that David pays <math>15 + 9 = x</math></p> <p>B. Calvin owns 24 CDs. If he gave 9 of them to a friend, what is <math>x</math>, the number of CDs he has left? <math>24 - 9 = x</math></p> <p>C. The sum of two numbers is 15. If one of the numbers is 9, what is <math>x</math>, the other number? <math>x + 9 = 15</math></p> <p>D. Allison is 9 years younger than her sister Pam. Allison is 15 years old. What is <math>x</math>, Pam's age? <math>x - 9 = 15</math></p> | C |
|---|---|

|  |       |
|--|-------|
| <p>6. Three children each had the same amount of money in their savings accounts. One of the children withdrew a third of her money and spent it all on a \$25 T-shirt. What was the total amount of money originally in the accounts? <math>x = \text{ONE CHILD'S MONEY}</math></p> <p><math>3 \cdot \frac{1}{3}x = 25 \cdot 3</math></p> <p><math>x = 75</math>    \$75 PER CHILD, <math>3(75) = \\$225</math> TOTAL</p> | \$225 |
|--|-------|

|  |       |
|--|-------|
| <p>7. The length of each side of an equilateral triangle is decreased by 4 inches, so the perimeter is now 27 inches. What is the original length of each side of the equilateral triangle?</p> <p><math>x = \text{ORIGINAL SIDE LENGTH}</math></p> <p><math>x - 4</math></p>  <p><math>\frac{27}{3} = 9</math></p> <p><math>x - 4 = 9</math><br/> <math>+4 \quad +4</math><br/> <math>x = 13</math></p> | 13 in |
|--|-------|

**Choose 7 of the following 9 problems**

|                           |            |            |                              |                 |   |
|---------------------------|------------|------------|------------------------------|-----------------|---|
| 1. \$3 more than Sara has | A. $3 - S$ | B. $S - 3$ | C. <u><math>S + 3</math></u> | D. $S \times 3$ | C |
|---------------------------|------------|------------|------------------------------|-----------------|---|

|                             |             |                               |             |             |   |
|-----------------------------|-------------|-------------------------------|-------------|-------------|---|
| 2. a number decreased by 12 | A. $12 - n$ | B. <u><math>n - 12</math></u> | C. $12 + n$ | D. $n + 12$ | B |
|-----------------------------|-------------|-------------------------------|-------------|-------------|---|

**Identify the solution of each equation.**

|                 |              |       |       |   |
|-----------------|--------------|-------|-------|---|
| 3. $6 + n = 20$ | A. <u>14</u> | B. 15 | C. 16 | A |
|-----------------|--------------|-------|-------|---|

|                 |       |       |              |   |
|-----------------|-------|-------|--------------|---|
| 4. $p - 2 = 19$ | A. 17 | B. 19 | C. <u>21</u> | C |
|-----------------|-------|-------|--------------|---|

|              |             |      |      |   |
|--------------|-------------|------|------|---|
| 5. $4h = 24$ | A. <u>6</u> | B. 8 | C. 9 | A |
|--------------|-------------|------|------|---|

**Solve each inequality. BE SURE TO SHOW YOUR WORK**

|  |  |  |  |
|--|--|--|--|
| <p>6. <math>y - 8 &gt; 20</math></p> <p><math>+8 \quad +8</math></p> <p><math>y &gt; 28</math></p> <p><math>28.1 - 8 &gt; 20</math></p> <p><math>y \quad 20.1 &gt; 20</math> ;</p> | <p>7. <math>h + 11 \leq 3</math></p> <p><math>-11 \quad -11</math></p> <p><math>h \leq -8</math></p> <p><math>-8.5 + 11 \leq 3</math></p> <p><math>h \quad 2.5 \leq 3</math> ;</p> | <p>8. <math>\frac{7k}{7} \geq \frac{-42}{7}</math></p> <p><math>k \geq -6</math></p> <p><math>7(-5) \geq -42</math></p> <p><math>-35 \geq -42</math> ;</p> | <p>9. <math>-1 \cdot \frac{p}{-1} &gt; 7(-1)</math></p> <p><math>p &lt; -7</math></p> <p><math>-7.5 &gt; 7</math></p> <p><math>p \quad 7.5 &gt; 7</math> ;</p> |
|--|--|--|--|