

M7 Ch6 Practice test

<p>1. Twice Brian's age plus 5 is Jose's age. Jose is 65. What is Brian's age?</p> <p><math>b = \text{BRIAN'S AGE}</math></p> $2b + 5 = 65$ $\begin{array}{r} 2b + 5 = 65 \\ -5 \phantom{=} \\ \hline 2b = 60 \\ \frac{2b}{2} = \frac{60}{2} \\ b = 30 \end{array}$ <p>BRIAN IS 30 YRS OLD</p> $2(30) + 5 = 65$ $60 + 5 = 65$	<p>BRIAN IS 30 YEARS OLD</p>
<p>2. Three children each had the same amount of money in their savings accounts. One of the children withdrew a quarter of her money and spent it all on a \$10 T-shirt. What was the total amount of money originally in the accounts?</p> <p><math>m = \text{MONEY IN ONE ACCOUNT}</math></p> $\frac{4}{1} \left( \frac{1}{4} m \right) = 10(4)$ $m = 40$ <p>EACH ACCOUNT HAS \$40</p> <p>ALL THREE ACCOUNTS <math>3m = 3(40)</math></p>	<p>\$120 TOTAL IN ALL THREE ACCOUNTS</p>
<p>3. The length of each side of a square was decreased by 2 inches, so the perimeter is now 48 inches. What was the original length of each side of the square?</p> <p>A. 10 in.      B. 12 in.      C. 14 in.      D. 16 in.</p> $\frac{48}{4} = 12$ <p>12+2</p> <p>12+2</p> <p>AFTER DECREASE</p>	<p>14 in or C</p>
<p>4. \$3 less than Sara has</p> <p>A. <math>3 - s</math>      B. <math>s - 3</math>      C. <math>s + 3</math>      D. <math>s \times 3</math></p> <p>\$10      \$3 LESS THAN \$10 = \$7</p>	<p>B</p>
<p>5. a number increased by 12</p> <p>A. <math>12 - n</math>      B. <math>n - 12</math>      C. <math>12 + n</math>      D. <math>n + 12</math></p>	<p>D</p>
<p>Identify the solution of each equation.</p>	
<p>6. <math>6 + n = 21</math></p> <p>A. 14      B. 15      C. 16</p> $\begin{array}{r} 6 + n = 21 \\ -6 \phantom{=} \\ \hline n = 15 \end{array}$	<p>B</p>
<p>7. <math>p - 2 = 17</math></p> <p>A. 17      B. 19      C. 21</p> $\begin{array}{r} p - 2 = 17 \\ +2 \phantom{=} \\ \hline p = 19 \end{array}$	<p>B</p>
<p>8. <math>4h = 32</math></p> <p>A. 6      B. 8      C. 9</p> $\frac{4h}{4} = \frac{32}{4}$ $h = 8$	<p>B</p>
<p>Solve and graph each inequality. BE SURE TO SHOW YOUR WORK</p>	
<p>9. <math>y + 8 &gt; 20</math></p> $\begin{array}{r} y + 8 > 20 \\ -8 \phantom{=} \\ \hline y > 12 \end{array}$ <p><math>y = 13</math>      <math>13 + 8 &gt; 20</math>      <math>21 &gt; 20</math></p> <p><math>y = 12</math>      <math>12 + 8 &gt; 20</math>      <math>20 &gt; 20</math></p> <p>OPEN CIRCLE BECAUSE 12 CAN NOT BE THE ANSWER</p>	<p>10. <math>-4w - 1 \leq 19</math></p> $\begin{array}{r} -4w - 1 \leq 19 \\ +1 \phantom{=} \\ \hline -4w \leq 20 \\ \frac{-4w}{-4} \geq \frac{20}{-4} \\ w \geq -5 \end{array}$ <p><math>-4(-4) - 1 \leq 19</math>      <math>-4(-5) - 1 \leq 19</math></p> <p><math>16 - 1 \leq 19</math>      <math>20 - 1 \leq 19</math></p> <p><math>15 \leq 19</math>      <math>19 \leq 19</math></p> <p>FILLED CIRCLE, -5 CAN BE THE ANSWER</p>

$$\begin{array}{l} 3 > 2 \\ 2 \cdot 3 > 2 \cdot 2 \\ 6 > 4 \end{array}$$

$$\begin{array}{l} 3 > 2 \\ -2(3) > -2(2) \\ -6 < -4 \end{array}$$

11. Gordon's friend Kendrick is reading the book **Myopia**. He has already read the first 85 pages. He wants to finish the book in seven days. Write and solve an inequality to show how many pages Kendrick will need to read each day. (Use  $p$  to represent the pages read per day.)

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

$$85 + 7p \geq 435$$

$$-85 \quad -85$$

$$\frac{7p}{7} \geq \frac{350}{7}$$

$$p \geq 50$$

$$p = 51$$

$$85 + 7(51) \geq 435$$

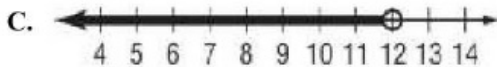
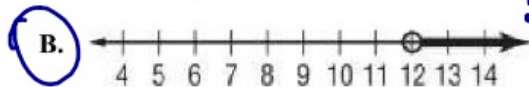
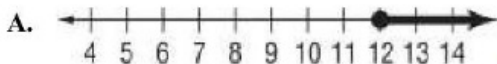
$$85 + 357 \geq 435$$

$$442 \geq 435$$

$$\begin{array}{r} 11 \\ 357 \\ +85 \\ \hline 442 \end{array}$$

$$\frac{51 \times 7}{357}$$

13. 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 more than \$3?



D. Not enough information is given.

$$\frac{3}{0.25}$$

$$0.25 \overline{) 3.00}$$

$\times 100 \quad \times 100$

$$\begin{array}{r} 12 \\ 25 \overline{) 300} \\ \underline{250} \\ 50 \\ \underline{50} \\ 0 \end{array}$$

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

$$4x + 7 \leq 40$$

- A. 12
- B. 10
- C. 9
- D. 8

$$4x + 7 \leq 40$$

$$-7 \quad -7$$

$$\frac{4x}{4} \leq \frac{33}{4}$$

$$x \leq 8.25$$

$$4(8) + 7 \leq 40$$

$$32 + 7$$

$$39 \leq 40 \quad \checkmark$$
  

$$4(9) + 7 \leq 40$$

$$36 + 7$$

$$43 \leq 40 \quad \checkmark$$

$$8.25$$

$$4 \overline{) 33.00}$$

$$\underline{32} \downarrow$$

$$10 \downarrow$$

$$\underline{8} \downarrow$$

$$20$$

$$\underline{20}$$

$$0$$

15. Each hamburger made uses  $\frac{3}{8}$  pound of hamburger. Gabe started with  $4\frac{3}{4}$  pounds of hamburger and now has  $\frac{5}{8}$  pounds left. How many hamburgers did he make?

$h = \text{NUMBER OF BURGERS}$

$$\frac{3}{8}h + \frac{5}{8} \geq 4\frac{6}{8}$$

$$-\frac{5}{8} \quad -\frac{5}{8}$$

$$\frac{3}{8}h \geq 4\frac{1}{8}$$

$$\frac{3}{8} \left( \frac{11}{1} \right) + \frac{5}{8} \geq 4\frac{6}{8}$$

$$\frac{33}{8} + \frac{5}{8} \geq \frac{38}{8}$$

$$\frac{38}{8} \geq \frac{38}{8}$$

$$\frac{8}{3} \left( \frac{3}{8} h \right) \geq \left( \frac{33}{8} + \frac{5}{8} \right) \frac{8}{3}$$

$$h \geq 11$$