





















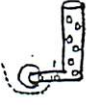

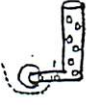







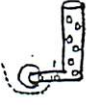

























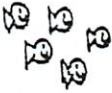

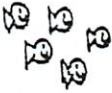







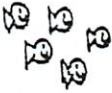





Lesson 17: Solving Compound Inequalities

Directions: Solve each compound inequality and use a pencil to DRAW the object that corresponds with your answer. SHOW YOUR STEPS!!!

<p>1. $4 \leq x + 2 \leq 7$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; padding: 2px;">(a) If your answer is $2 \leq x \leq 5$ draw the following ears.</td> <td style="width: 20%; text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is $6 \leq x \leq 9$ draw the following ears.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is $2 \leq x \leq 5$ draw the following ears.		(b) If your answer is $6 \leq x \leq 9$ draw the following ears.		<p>2. $x + 6 > 4$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; padding: 2px;">(a) If your answer is $x > 10$ draw the following snorkel mask.</td> <td style="width: 20%; text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is $x > 2$ draw the following snorkel mask.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is $x > 10$ draw the following snorkel mask.		(b) If your answer is $x > 2$ draw the following snorkel mask.		<p>3. $x + 6 \leq 10$ or $x - 2 \geq 3$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; padding: 2px;">(a) If your answer is $x \leq 5$ or $x \geq 4$ draw the following eyes inside the mask.</td> <td style="width: 20%; text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is $x \leq 4$ or $x \geq 5$ draw the following eyes inside the mask.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is $x \leq 5$ or $x \geq 4$ draw the following eyes inside the mask.		(b) If your answer is $x \leq 4$ or $x \geq 5$ draw the following eyes inside the mask.	
(a) If your answer is $2 \leq x \leq 5$ draw the following ears.														
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(a) If your answer is $x > 10$ draw the following snorkel mask.														
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<p>4. $-3 \geq -3x \geq -9$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; padding: 2px;">(a) If your answer is $-6 \leq x \leq 0$ draw the following eyebrows.</td> <td style="width: 20%; text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is $1 \leq x \leq 3$ draw the following eyebrows.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is $-6 \leq x \leq 0$ draw the following eyebrows.		(b) If your answer is $1 \leq x \leq 3$ draw the following eyebrows.		<p>5. $5x \leq -15$ or $2x \geq 6$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; padding: 2px;">(a) If your answer is $x \leq 3$ or $x \geq -3$ draw the following snorkel.</td> <td style="width: 20%; text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is $x \leq -3$ or $x \geq 3$ draw the following snorkel.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is $x \leq 3$ or $x \geq -3$ draw the following snorkel.		(b) If your answer is $x \leq -3$ or $x \geq 3$ draw the following snorkel.		<p>6. $-15 < x - 7$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; padding: 2px;">(a) If your answer is $-8 < x$ draw TWO bubbles coming out of the snorkel.</td> <td style="width: 20%; text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is $-8 > x$ draw LOTS of bubbles coming out of the snorkel.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is $-8 < x$ draw TWO bubbles coming out of the snorkel.		(b) If your answer is $-8 > x$ draw LOTS of bubbles coming out of the snorkel.	
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<p>7. $x + 6 = 5$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; padding: 2px;">(a) If your answer is $x = -1, -11$ draw the following hair.</td> <td style="width: 20%; text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is $x = -1$ draw the following hair.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is $x = -1, -11$ draw the following hair.		(b) If your answer is $x = -1$ draw the following hair.		<p>8. $5 < x - 1 < 7$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; padding: 2px;">(a) If your answer is $6 < x < 8$ draw seaweed in the background.</td> <td style="width: 20%; text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is $4 < x < 6$ draw coral in the background.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is $6 < x < 8$ draw seaweed in the background.		(b) If your answer is $4 < x < 6$ draw coral in the background.		<p>9. $-2 < 1 - x < 5$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; padding: 2px;">(a) If your answer is $-3 < x < 4$ draw an octopus in the background.</td> <td style="width: 20%; text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is $-4 < x < 3$ draw a jellyfish in the background.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is $-3 < x < 4$ draw an octopus in the background.		(b) If your answer is $-4 < x < 3$ draw a jellyfish in the background.	
(a) If your answer is $x = -1, -11$ draw the following hair.														
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<p>10. $-2 \geq -2x - 4 \geq -6$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; padding: 2px;">(a) If your answer is $-2 \leq x \leq 2$ draw a seashell in the background.</td> <td style="width: 20%; text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is $-1 \leq x \leq 1$ draw a starfish in the background.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is $-2 \leq x \leq 2$ draw a seashell in the background.		(b) If your answer is $-1 \leq x \leq 1$ draw a starfish in the background.		<p>11. $-9x < 18$ or $x + 5 < -2$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; padding: 2px;">(a) If your answer is $x < -7$ or $x > -2$ draw a school of fish in the background.</td> <td style="width: 20%; text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is $x < -9$ or $x > -7$ draw TWO fish in the background.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is $x < -7$ or $x > -2$ draw a school of fish in the background.		(b) If your answer is $x < -9$ or $x > -7$ draw TWO fish in the background.		<p>12. $3x - 2 = 4$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%; padding: 2px;">(a) If your answer is $x = 2, \frac{-2}{3}$ draw a whale in the background.</td> <td style="width: 20%; text-align: center; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">(b) If your answer is $x = 2$ draw a shark in the background.</td> <td style="text-align: center; padding: 2px;"></td> </tr> </table>	(a) If your answer is $x = 2, \frac{-2}{3}$ draw a whale in the background.		(b) If your answer is $x = 2$ draw a shark in the background.	
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Directions: Solve each compound inequality and **COLOR** the object that corresponds with your answer. **SHOW YOUR STEPS!!!**

<p>13. $3x+1 \leq 19$ and $2x-6 \geq 2$</p> <p>(a) If your answer is $4 \leq x \leq 6$ color the snorkel mask gray. (b) If your answer is $x \geq 4$ or $x \leq 6$ color the snorkel mask blue.</p>	<p>14. $9x+4 \leq -6x-26$</p> <p>(a) If your answer is $x \leq -2$ outline the eyes in green. (b) If your answer is $x \geq -2$ outline the eyes in black.</p>	<p>15. $-11 \leq 5x-1 \leq 4$</p> <p>(a) If your answer is $-10 \leq x \leq 5$ outline the eyebrows in brown. (b) If your answer is $-2 \leq x \leq 1$ outline the eyebrows in black.</p>
<p>16. $-6 \leq -4x+2 \leq 2$</p> <p>(a) If your answer is $0 \leq x \leq 2$ color the stripes on the snorkel red. (b) If your answer is $-8 \leq x \leq 0$ color the stripes on the snorkel blue.</p>	<p>17. $x-8 +3 \leq 11$</p> <p>(a) If your answer is $x \leq 16$ and $x \geq 0$ color the rest of the snorkel green. (b) If your answer is $x \leq 16$ and $x \geq 3$ color the rest of the snorkel gray.</p>	<p>18. $3x-1 > 2$ or $-x > 2$</p> <p>(a) If your answer is $x < -2$ or $x > 1$ outline the bubbles in black. (b) If your answer is $x < -2$ or $x > 3$ outline the bubbles in blue.</p>
<p>19. $x+5 > 7$</p> <p>(a) If your answer is $x > 2$ and $x < -12$ color the hair red. (b) If your answer is $x > 2$ or $x < -12$ color the hair orange.</p>	<p>20. $-5 > 1-6x > -11$</p> <p>(a) If your answer is $-12 < x < -6$ color the ears, face, neck, and arms brown. (b) If your answer is $1 < x < 2$ color the ears, face, neck, and arms apricot.</p>	<p>21. $-21 \leq 7x$ and $7x \leq 42$</p> <p>(a) If your answer is $-28 \leq x \leq 35$ color the shirt purple. (b) If your answer is $-3 \leq x \leq 6$ color the shirt black.</p>
<p>22. $-6 \leq 2+x$ and $-5 \leq -x$</p> <p>(a) If your answer is $-5 \leq x \leq -4$ color the seaweed/coral red. (b) If your answer is $-8 \leq x \leq 5$ color the seaweed/coral green.</p>	<p>23. $33 \geq 11x$ or $5 \leq x-3$</p> <p>(a) If your answer is $x \leq 3$ or $x \geq 8$ color the octopus/jellyfish purple. (b) If your answer is $x \geq 22$ or $x \leq 8$ color the octopus/jellyfish brown.</p>	<p>24. $-20 < 4-6x < 22$</p> <p>(a) If your answer is $-3 < x < 4$ color the seashell/starfish pink. (b) If your answer is $-28 \leq x \leq 35$ color the seashell/starfish orange.</p>
<p>25. $9 < -x$ or $7 < 9+x$</p> <p>(a) If your answer is $x < -2$ or $x > -9$ color the whale/shark blue. (b) If your answer is $x < -9$ or $x > -2$ color the whale/shark gray.</p>	<p>26. $3x+8 < 2$</p> <p>(a) If your answer is $x < -2$ and $x > \frac{-10}{3}$ color the fish DIFFERENT colors. (b) If your answer is NO solution color the fish the SAME color.</p>	<p>27. $17 \geq -8x+1 \geq -7$</p> <p>(a) If your answer is $-8 \leq x \leq 16$ color the background brown. (b) If your answer is $-2 \leq x \leq 1$ color the background blue.</p>

Artistic Tip: When you are done coloring, it looks nice to outline the major features using a black crayon or marker.

