

# 2.4 Puzzle Time

## Where Do Young Tigers Swim?

Write the letter of each answer in the box containing the exercise number.

**Solve the inequality.**

1.  $4x - 7 < 9$

2.  $-11 > 10 - 7x$

3.  $\frac{x}{6} + 5 > 8$

4.  $-\frac{x}{2} + 12 \geq 14$

5.  $6x - 23 > 25$

6.  $6 - \frac{x}{5} \geq -2$

7.  $3 \geq -3(x - 13)$

8.  $16 - 4x > 9 - 5x$

9.  $2x + 7 \leq 2x + 8$

10.  $-6(x - 1) < -14(x - 5)$

11.  $12x + 4x - 11 \geq 16x + 17$

12.  $3(1 - x) + 10x \leq 9(x - 2) + 7$

13. The students in charge of the class booth at a carnival would like to earn \$3 for every item they sell. They spent \$55 for the materials to make the items. Solve the inequality  $3x - 55 \geq 65$ , which represents how many items they need to sell to make a profit of at least \$65.

14. A triangle has a base of 14 centimeters and a height of  $(3x - 4)$  centimeters. The area of the triangle is greater than 56 centimeters. Solve the inequality  $\frac{1}{2}(14)(3x - 4) > 56$  to find the possible values of  $x$ .

**Answers**

**N.** all real numbers

**K.**  $x \geq 7$

**P.**  $x < 8$

**E.**  $x > 3$

**O.**  $x < 4$

**I.**  $x > 8$

**O.**  $x \geq 40$

**Y.**  $x \leq -4$

**T.**  $x > 4$

**L.**  $x > -7$

**T.** no solution

**H.**  $x \geq 12$

**I.**  $x \leq 40$

**T.**  $x > 18$

5	9		3	7	2		12	6	14	11	4		10	1	13	8
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