Warm up:

Solve.

1) $-x + 4(2x - 5) - 8x = -12$

$-x + 8x - 20 - 8x = -12$

$-x - 20 = -12$

$+20 \quad +20$

$-x = 8$

$x = -8$

2) $(9 - 2x) - 3(2x + 1) + (5x - 7) = -1$

$9 - 2x - 6x - 3 + 5x - 7 = -1$

$-1 - 3x = -1$

$+1 \quad +1$

$-3x = 0$

$-3 \quad -3$

$x = 0$

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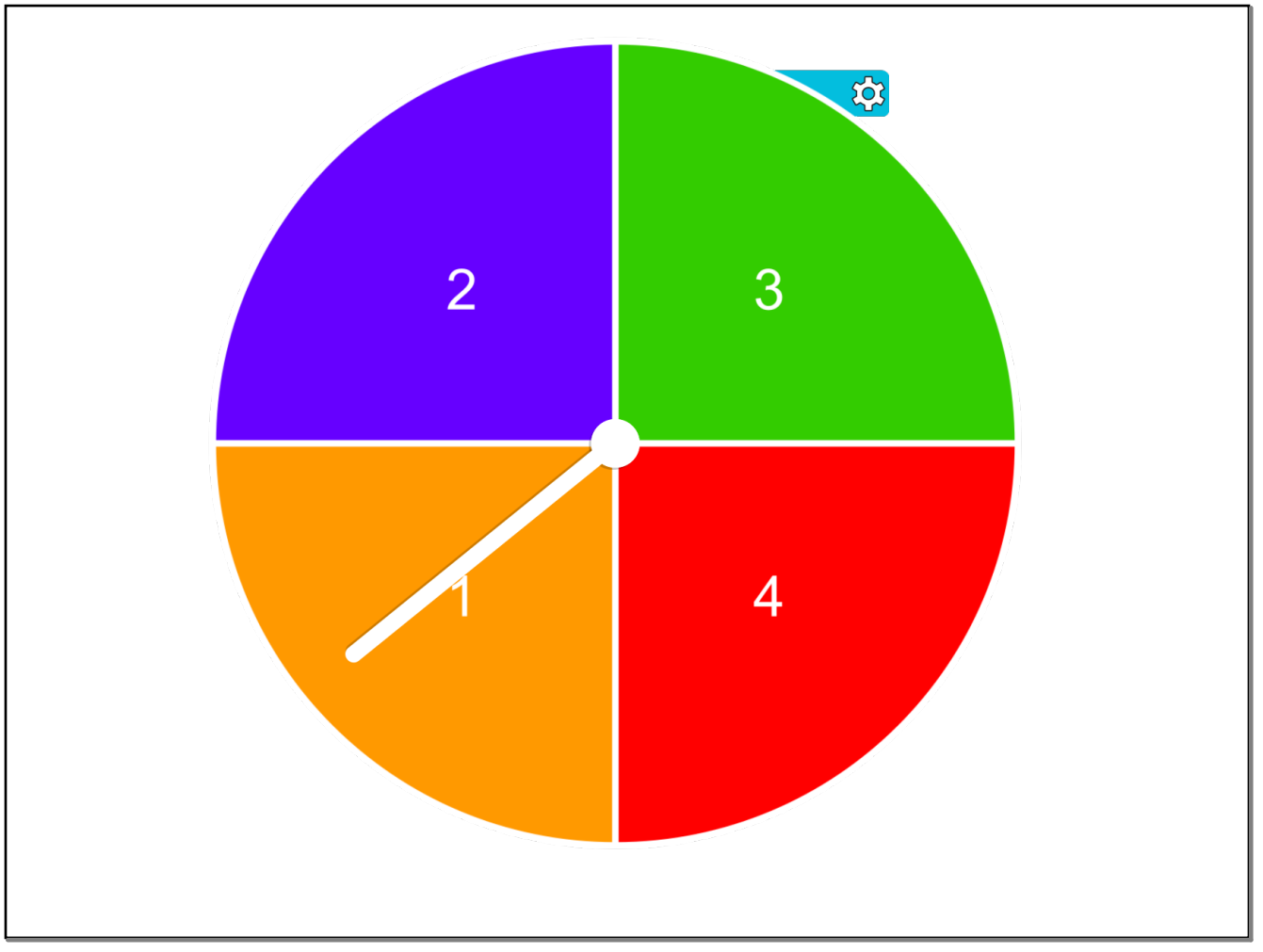

$$5\left(\frac{b+7}{5}\right)=(12)5$$

$$b+7=60$$
$$-7\quad -7$$
$$b=53$$

The sum of 3 consecutive even integers is 96. What are the three integers?

$x + x + 2 + x + 4 = 96$

$3x + 6 = 96$

$-6 \quad -6$

$3x = 90$

$\frac{3x}{3} = \frac{90}{3}$

$x = 30$

30, 32, 34

$$5 - x = 11$$

$-5 \qquad -5$

$$-x = 6$$

$\div -1 \qquad \div -1$

$$x = -6$$

$$|n| + 3 = 18$$

$-3 \quad -3$

$$|n| = 15$$

$$n = \pm 15$$

$$4 + 2|3x - 6| = 14$$

$-4 \qquad -4$

$$\frac{2|3x-6|}{2} = \frac{10}{2}$$

$$|3x-6| = 5$$

$x = \frac{11}{3}, \frac{1}{3}$

$3x - 6 = 5$ $+6 \quad +6$

$\frac{3x}{3} = \frac{11}{3}$ $x = \frac{11}{3}$

$3x - 6 = -5$ $+6 \quad +6$

$\frac{3x}{3} = \frac{1}{3}$ $x = \frac{1}{3}$

$$(x+5)-2(3-4x)=44$$

$x+5-6+8x=44$

$9x-1=44$

$+1 \quad +1$

$\frac{9x}{9}=\frac{45}{9}$

$x=5$

$$-3+2(6k+1)=143$$

$-3+12k+2=143$

$12k-1=143$

$+1 \quad +1$

$\frac{12k}{12}=\frac{144}{12}$

$k=12$

The length of a rectangle is 10ft longer than the width. If the perimeter is 100ft, what is the length and width of the rectangle?

$$(8 - x) - 3(4x - 5) + 2(5x - 1) = 12$$

Nate has six dollars more than twice as much money as Phil. Together, they have $51. How much money does each person have?

$$-5 = 8 - \frac{x}{2}$$

$$-x + 2(x + 8) = -31$$

4 consecutive integers have a sum of 138.
What are the numbers?

$$-6 + 4(x - 9) + x = -3$$

Ed makes $9/h at his job. If he already has $240, how many hours will he need to work in order to have $807?

$$|4x - 18| = -3$$

Tommy sells bags of twizzlers and soft pretzels at football games. Yesterday, he sold a total of 183 snacks. The number of bags of twizzlers he sold was half the number of soft pretzels. How many of each did he sell?

$$2|x| + 5(12 - 3|x|) = 21$$

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