**Find the difference of each expression below.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **1.** | $$ -50-\left(-24\right)=$$ | **2.** | $$ 75-\left(-40\right)=$$ | **3.** | $$ -121-200=$$ |
|  |  |  |  |  |  |
| **4.** | $$ 20-56=$$ | **5.** | $$ -121-65=$$ | **6.** | $$ -20-(-153)=$$ |
|  |  |  |  |  |  |

**Show the subtraction on the number line. Then write the difference.**

|  |  |  |
| --- | --- | --- |
| **7.** |  $2-4=$  | $$ $$**0****1****2****3****4** **-1** **-2****-3****-4****5****6** **-5** **-6** |
| **8.** | $$\left(-2\right)-\left(-4\right)=$$ | $$ $$$$ $$**0****1****2****3****4** **-1** **-2****-3****-4****5****6** **-5** **-6**$$ $$ |

|  |  |  |
| --- | --- | --- |
| **9.** | $$5-\left(-1\right)=$$ | $$ $$**0****1****2****3****4** **-1** **-2****-3****-4****5****6** **-5** **-6** |
| **10.** | $$-2-2=$$ | $$ $$$$ $$**0****1****2****3****4** **-1** **-2****-3****-4****5****6** **-5** **-6**$$ $$ |

**Write the expression that each number line demonstrates.** **Then write the difference.**

|  |  |
| --- | --- |
| **11.** | $$ $$**0****1****2****3****4** **-1** **-2****-3****-4****5****6** **-5** **-6** |
|  |  |
| **12.** | $$ $$$$ $$$$ $$**0****1****2****3****4** **-1** **-2****-3****-4****5****6** **-5** **-6** |
|  |  |
| **13.** | $$ $$**0****1****2****3****4** **-1** **-2****-3****-4****5****6** **-5** **-6** |
|  |  |
| **14.** | $$ $$**0****1****2****3****4** **-1** **-2****-3****-4****5****6** **-5** **-6** |
|  |  |

**Solve each expression below.**

|  |  |  |  |
| --- | --- | --- | --- |
| **15.** | $$ \left(-32\right)-\left(-20\right)-5=$$ | **16.** | $$ 89-\left(-10\right)-(-18)=$$ |
|  |  |  |  |
| **17.** | $$ 93-\left(-52\right)-\left[-14+12\right]^{2}=$$ | **18.** | $$ \left(-23-34\right)-\left[20+\left(-11\right)\right]=$$ |
|  |  |  |  |
| **19.** | $$ -19+55-\left[60-66\right]^{2}=$$ | **20.** | $$ 10-\left(-50\right)-\left(-30\right)+\left(-80\right)-60=$$ |
|  |  |  |  |

**WORD PROBLEMS**

|  |  |
| --- | --- |
| **21.** | When Melanie subtracted$-20-(-20$), she got a difference of$- 40$ . Is her answer correct? If not, what mistake did she make? |
|  |  |
| **22.** | Harry owes his brother 3 dollar. He borrows 7 more dollars from his brother. He pays his brother back 5 dollars. How much does Harry still owe his brother? |
|  |  |
| **23.** | The temperature on Saturday was $-5$ °C. By Sunday the temperature rose to $-1$ °C. Find the change in temperature. |
|  |  |

**ANSWERS**

**Find the difference of each expression below.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **1.** | $$ -50-\left(-24\right)=$$ | **2.** | $$ 75-\left(-40\right)=$$ | **3.** | $$ -121-200=$$ |
|  | $$ -50-\left(-24\right)=$$$$=-50+24=$$$$=-26$$ |  | $$ 75-\left(-40\right)=$$$$=75+40=$$$$=115$$ |  | $$ -121-200=$$$$=-121+\left(-200\right)=$$$$=-321$$ |
| **4.** | $$ 20-56=$$ | **5.** | $$ -121-65=$$ | **6.** | $$ -20-(-153)=$$ |
|  | $$ 20-56=$$$$=20+\left(-56\right)=$$$$=-36$$ |  | $$ -121-65=$$$$=-121+\left(-65\right)=$$$$=-186$$ |  | $$ -20-\left(-153\right)=$$$$=-20+153=$$$$=133$$ |

**Show the subtraction on the number line. Then write the difference.**

|  |  |  |
| --- | --- | --- |
| **7.** |  $2-4=$  | $$-4$$$$ 2 $$**0****1****2****3****4** **-1** **-2****-3****-4****5****6** **-5** **-6**$$ 2-4=$$$$=2+\left(-4\right)=$$$$=-2$$ |
| **8.** | $$\left(-2\right)-\left(-4\right)=$$ | $$ $$$$+4$$$$ -2$$**0****1****2****3****4** **-1** **-2****-3****-4****5****6** **-5** **-6**$$ \left(-2\right)-\left(-4\right)=$$$$=\left(-2\right)+4=$$$$=2$$ |

|  |  |  |
| --- | --- | --- |
| **9.** | $$5-\left(-1\right)=$$ | $$ $$$$ +5 +1 $$**0****1****2****3****4** **-1** **-2****-3****-4****5****6** **-5** **-6**$$ 5-\left(-1\right)=$$$$=5+1=$$$$=6$$ |
| **10.** | $$-2-2=$$ | $$ $$$$ -2 -2 $$**0****1****2****3****4** **-1** **-2****-3****-4****5****6** **-5** **-6**$$ -2-2=$$$$=-2+(-2)=$$$$=-4$$ |

**Write the expression that each number line demonstrates.** **Then write the difference.**

|  |  |
| --- | --- |
| **11.** | $$+7$$$$ -3$$**0****1****2****3****4** **-1** **-2****-3****-4****5****6** **-5** **-6** |
|  | $$ -3-(-7)=$$$$=-3+7=$$$$=4$$ |
| **12.** | $$ $$$$ -6$$$$ +6$$**0****1****2****3****4** **-1** **-2****-3****-4****5****6** **-5** **-6** |
|  | $$ 6-6=$$$$=6+(-6)=$$$$=0$$ |
| **13.** | $$ +1 +4 $$**0****1****2****3****4** **-1** **-2****-3****-4****5****6** **-5** **-6** |
|  | $$ 1-\left(-4\right)=$$$$=1+4=$$$$=5$$ |
| **14.** | $$ -2 -4 $$**0****1****2****3****4** **-1** **-2****-3****-4****5****6** **-5** **-6** |
|  | $$ -4-2=$$$$=-4+(-2)=$$$$=-6$$ |

**Solve each expression below.**

|  |  |  |  |
| --- | --- | --- | --- |
| **15.** | $$ \left(-32\right)-\left(-20\right)-5=$$ | **16.** | $$ 89-\left(-10\right)-(-18)=$$ |
|  | $$ \left(-32\right)-\left(-20\right)-5=$$$$=\left(-32\right)+20-5=$$$$=\left(-12\right)-5=$$$$=\left(-12\right)+(-5)=$$$$=-17$$ |  | $$ 89-\left(-10\right)-(-18)=$$$$=89+10-(-18)=$$$$=99-\left(-18\right)=$$$$=99+18=$$$$=117$$ |
| **17.** | $$ 93-\left(-52\right)-\left[-14+12\right]^{2}=$$ | **18.** | $$ \left(-23-34\right)-\left[20+\left(-11\right)\right]=$$ |
|  | $$ 93-\left(-52\right)-\left[-14+12\right]^{2}=$$$$=93-\left(-52\right)-\left[-2\right]^{2}=$$$$=93+52-4=$$$$=145-4=$$$$=145+(-4)=$$$$=141$$ |  | $$ \left(-23-34\right)-\left[20+\left(-11\right)\right]=$$$$=\left[\left(-23+(-34\right)\right]-9=$$$$=\left[-57\right]-9=$$$$=\left[-57\right]+\left[-9\right]=$$$$=-66$$ |
| **19.** | $$ -19+55-\left[60-66\right]^{2}=$$ | **20.** | $$ 10-\left(-50\right)-\left(-30\right)+\left(-80\right)-60=$$ |
|  | $$ -19+55-\left[60-66\right]^{2}=$$$$=-19+55-\left[60+(-66)\right]^{2}=$$$$=-19+55-\left[-6\right]^{2}$$$$=-19+55-36$$$$=36-36=$$$$=36+\left(-36\right)=$$$$=0$$ |  | $$ 10-\left(-50\right)-\left(-30\right)+\left(-80\right)-60=$$$$=10+50-\left(-30\right)+\left(-80\right)-60=$$$$=60-\left(-30\right)+\left(-80\right)-60=$$$$=60+30+\left(-80\right)-60=$$$$=90+\left(-80\right)-60=$$$$=10-60=$$$$=10+(-60)=$$$$=-50$$ |

**WORD PROBLEMS**

|  |  |
| --- | --- |
| **21.** | When Melanie subtracted$-20-(-20$), she got a difference of$- 40$ . Is her answer correct? If not, what mistake did she make? |
|  | $$ -20-(-20)=$$$$=-20+20=$$$=0$No. The correct answer is$ 0$. Iris may have added $-20$ and $-20$ instead of adding the opposite of $-20.$ |
| **22.** | Harry owes his brother 3 dollar. He borrows 7 more dollars from his brother. He pays his brother back 5 dollars. How much does Harry still owe his brother? |
|  | $$ -3+\left(-7\right)+5=$$$$=-10+5=$$$$=-5$$Harry still owes his brother 5$. |
| **23.** | The temperature on Saturday was $-5$ °C. By Sunday the temperature rose to $-1$ °C. Find the change in temperature. |
|  | $$ -1-\left(-5\right)= $$$$=-1+5=$$$=4$ The temperature increased by $ 4$ °C.  |