

Independent Practice

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Fill in each \bigcirc with $<$, $>$, or $=$ to make a true statement. (Example 1)

1. $-2 \bigcirc -4$

2. $1 \bigcirc -3$

3. $5 \bigcirc 0$

4. Amy is building a house. The basement floor is at -15 feet. The roof of the house is above the ground 25 feet. Write an inequality to compare the heights. Explain the meaning of the inequality. (Example 2)

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5. The low temperature in Anchorage, Alaska, one day was -9°F . On the same day, the low temperature in Flagstaff, Arizona, was 26°F . Write an inequality to compare the temperatures. Explain the meaning of the inequality. (Example 2)

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Order each set of integers from least to greatest. (Example 3)

6. $\{15, 17, 21, 6, 3\}$

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7. $\{-55, 143, 18, -79, 44, 101\}$

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8. The table indicates Xavier's cell phone use over the last four months. Positive values indicate the number of minutes he went over his allotted time, and negative values indicate the number of minutes he was under. Arrange the months from least to most minutes used. (Example 4)

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Month	Time (min)
February	-156
March	12
April	0
May	-45

9. **PS Use Math Tools** Refer to the table and the following information. The apparent magnitude of an object measures how bright the object appears to the human eye. A negative magnitude identifies a brighter object than a positive magnitude.

a. Which object appears the brightest to the human eye?

b. Order the objects from the brightest to the faintest.

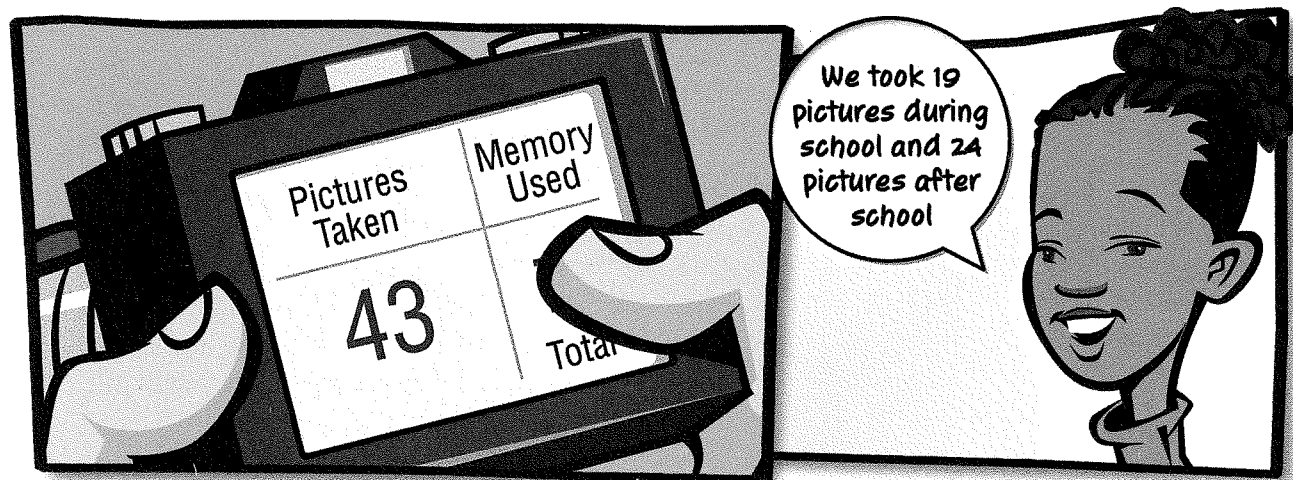
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c. Find the least apparent magnitude of this data set.

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Object	Approximate Apparent Magnitude
100-Watt Bulb	-19
Alpha Centauri	4
Andromeda Galaxy	0
Full Moon	-13
Sun	-27
Venus	-5

10. **PS Justify Conclusions** Refer to the graphic novel frame below for exercises a–c.



- The memory card holds 65,536 kilobytes. If each picture is about 760 kilobytes, about how many more pictures can they take? _____
- Write an inequality to compare the number of pictures taken during school to the number of pictures taken after school. _____
- Explain the meaning of the inequality. _____

H.O.T. Problems Higher Order Thinking

- PS Model with Mathematics** Write a real-world situation to explain the inequality $-\$15 < \7 . _____
- PS Reason Abstractly** Explain why -11 is less than -7 , but $|-11|$ is greater than $|-7|$. _____
- PS Persevere with Problems** Order the fractions $-\frac{1}{2}$, $\frac{5}{2}$, $-\frac{12}{4}$, $\frac{1}{6}$, and $\frac{7}{8}$ from least to greatest. _____
- PS Persevere with Problems** Find all integers that make $|n| < 3$ a true statement. Then graph the integers on the number line. _____

