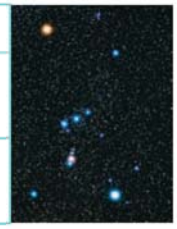
59. **TAKS REASONING** A star's apparent magnitude measures how bright the star appears to a person on Earth. A star's absolute magnitude measures its brightness if it were a distance of 33 light-years, or about 194 trillion miles, from Earth. The greater the magnitude, the dimmer the star.

Star	Arcturus	Achernar	Canopus	Capella	Sirius	Sun
Apparent magnitude	−0.04	0.46	−0.72	0.08	−1.46	−26.72
Absolute magnitude	0.2	−1.3	−2.5	0.4	1.4	4.8



Orion Constellation

a. Order Order the stars in the table from brightest to dimmest when viewed from Earth. Then order the stars from brightest to dimmest if they were 33 light-years from Earth.

b. Compare The star Rigel has an apparent magnitude of 0.12 and an absolute magnitude of −8.1. *Compare* its brightness with the Sun's brightness using both apparent magnitude and absolute magnitude.

c. Analyze Can you use the apparent magnitudes of two stars to predict which star is brighter in terms of absolute magnitude? *Explain* your answer using a comparison of the apparent and absolute magnitudes of two stars in the table.

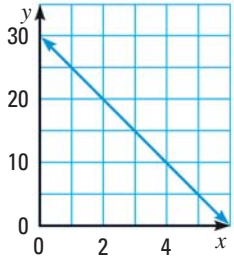
60. **CHALLENGE** In an academic contest, the point values of the questions are given by the expression $50x$ where $x = 1, 2, 3,$ and 4. You earn $50x$ points for a correct answer to a question and $-(50x)$ points for an incorrect answer. Order from least to greatest all the possible points you can earn when answering a question.

MIXED REVIEW FOR TAKS

TAKS PRACTICE at classzone.com

REVIEW
Lesson 1.7;
TAKS Workbook

61. **TAKS PRACTICE** The graph of which function is shown? *TAKS Obj. 3*



Ⓐ $y = 30x$

Ⓑ $y = 30 - x$

Ⓒ $y = 30 - (x + 5)$

Ⓓ $y = 30 - 5x$

REVIEW
TAKS Preparation
p. 702;
TAKS Workbook

62. **TAKS PRACTICE** You are going to paint your room and need to determine the area of its walls and ceiling. The room is a rectangular prism with dimensions 10 feet by 10 feet by 8 feet. One of the walls contains a rectangular door that is 3 feet by 6 feet and two square windows each with a side length of 2 feet. What is the area you need to paint, not including the door and the two windows? *TAKS Obj. 8*

Ⓕ 394 ft^2 Ⓖ 454 ft^2 Ⓗ 500 ft^2 Ⓙ 800 ft^2