Session 1

1. What is the value of $\sqrt[3]{27}$?

A. 1
B. 2
C. 3
D. 9

2. Which symbol goes in the blank to make this sentence true?

$\sqrt{15} \bigcirc \pi$

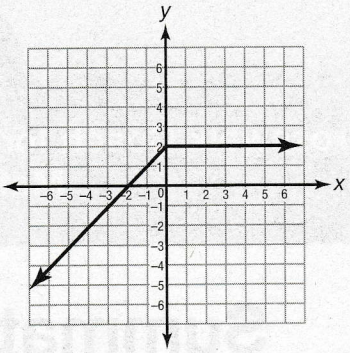
A. $>$
B. $<$
C. $=$
D. $+$

3. What is the value of x in $x^2 = 14$?

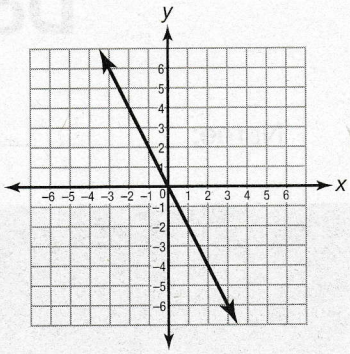
A. 1.4
B. 7
C. $\sqrt{14}$
D. $\sqrt[3]{14}$

4. Which graph does **not** represent a function?

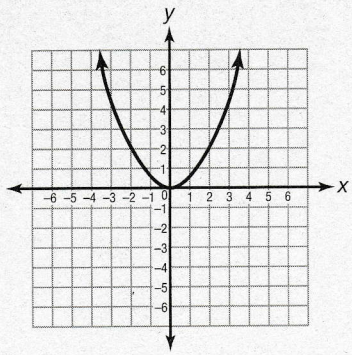
A.



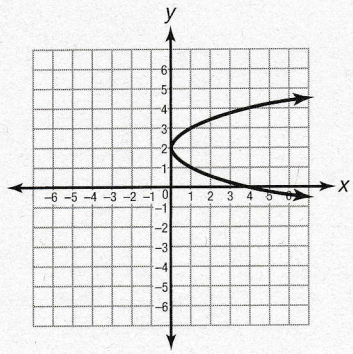
B.



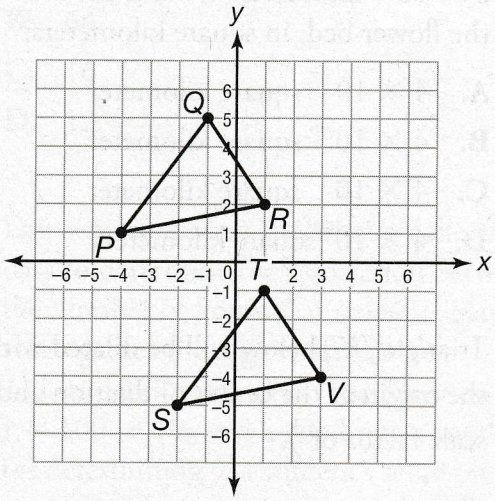
C.



D.



5. Triangle PQR and triangle STV are shown on the coordinate grid below.



If $\triangle PQR$ is translated 6 units down and 2 units to the right, which will be true?

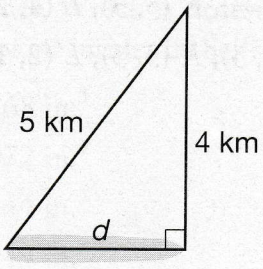
A. Angle P will move onto congruent $\angle S$.

B. Angle P will move onto congruent $\angle T$.

C. Angle R will move onto congruent $\angle S$.

D. Angle R will move onto congruent $\angle T$.

6. The distance across a lake cannot be directly measured. A land surveyor takes some other measurements and uses them to find d, the distance across the lake. What is the value of d?



A. 1 kilometer

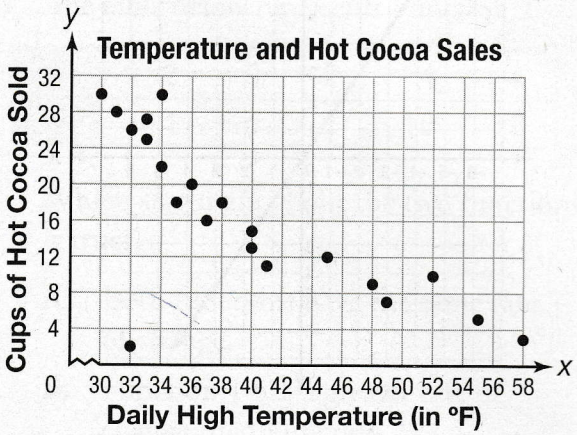
B. 3 kilometers

C. 4.5 kilometers

D. 6.4 kilometers

Use the scatter plot for questions 7 and 8.

The scatter plot below shows the daily high temperature and the number of cups of hot cocoa sold by a cafe over a 3-week period.



7. If the data contain an outlier, which coordinates best represent it?

A. (30, 30)

B. (32, 2)

C. (58, 3)

D. There is no outlier for these data.

8. Which best describes the association shown by the scatter plot?

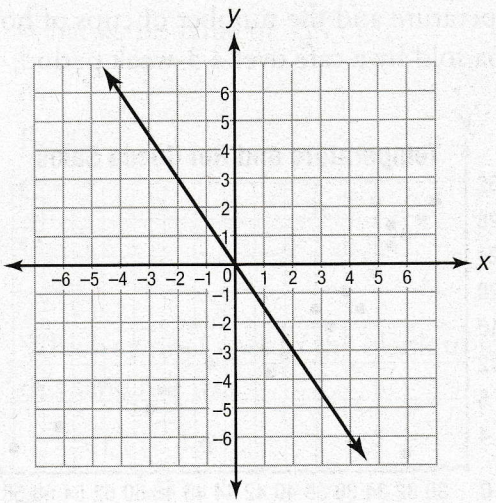
A. negative, linear association

B. positive, linear association

C. nonlinear association

D. no association

9. What is the equation for the line graphed below?



A. $y = -\frac{3}{2}x$

B. $y = -\frac{2}{3}x$

C. $y = \frac{2}{3}x$

D. $y = \frac{3}{2}x$

10. Which formula below describes a linear function?

A. area of a square with sides s units long: $A = s^2$

B. surface area of a sphere with radius r units long: $A = 4\pi r^2$

C. perimeter of a square with sides s units long: $P = 4s$

D. volume of a cube with edges s units long: $V = s^3$

11. A rect
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A.
B.
C.
D.

12. Trian
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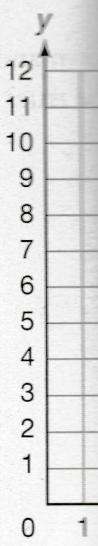
scale



What
vertic

A.
B.
C.
D.