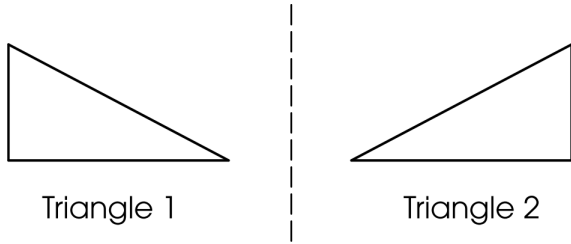


Name: _____

Date: _____

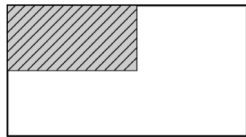
1. Lucy drew triangle 1.



Which transformation did Lucy use to make triangle 2?

- A. reflection (flip)
- B. no transformation
- C. translation (slide)
- D. rotation (turn)

2. Darlene designed the flag below.



Which of the following shows Darlene's flag turned 90° **counterclockwise**?

- A.
- B.
- C.
- D.

3.



Which of the following shows the flag above turned 90° clockwise?

- A.
- B.
- C.
- D.

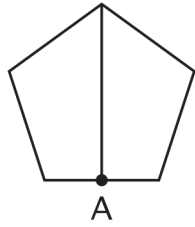
4. The following figure is to be rotated 90° clockwise.



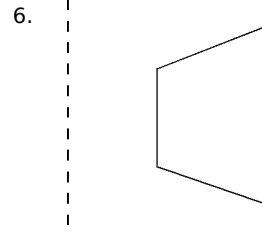
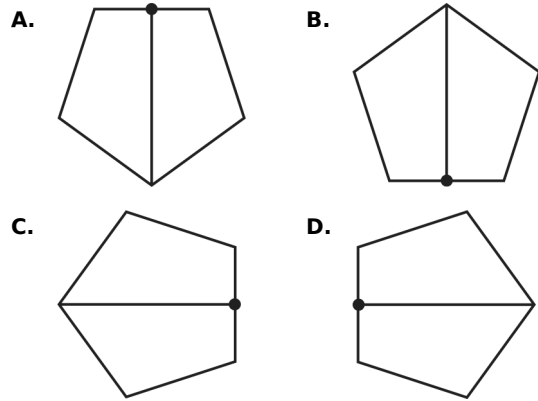
What will the figure look like after the rotation?

- A.
- B.
- C.
- D.

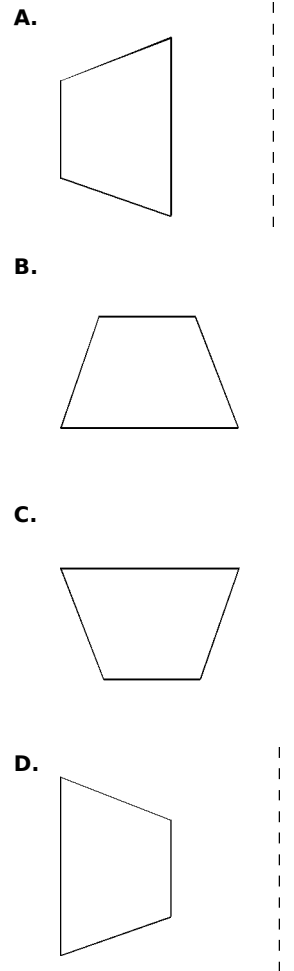
5. Study the shape below.



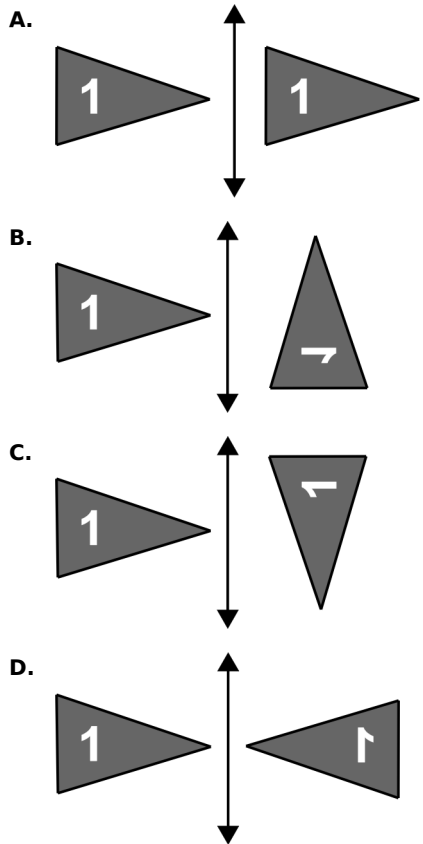
Which shape represents a 90-degree clockwise turn around point A?



Which figure is a reflection of the polygon over the dotted line?



7. Which figure shows the flag on the left after it has been flipped across the line and then rotated 90° ?



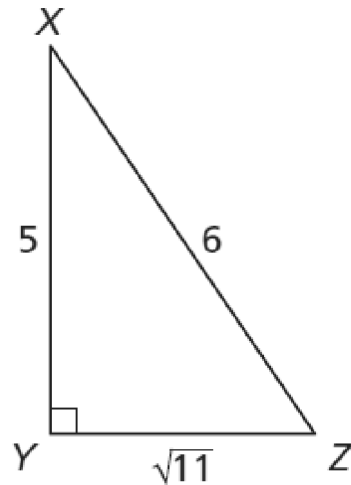
8. What are the solutions to the equation $x^2 - 6x + 5 = -8$?

- A. 2 and 3 B. $2i$ and $3i$
 C. $3 + 2 \cdot 3$ and $3 - 2 \cdot 3$ D. $3 + 2i$ and $3 - 2i$

9. What are the roots of the equation $3x^2 - x + 2 = 0$?

- A. $\left\{1, \frac{-2}{3}\right\}$
 B. $\{3, -2\}$
 C. $\left\{\frac{1+5i}{6}, \frac{1-5i}{6}\right\}$
 D. $\left\{\frac{1+i\sqrt{23}}{6}, \frac{1-i\sqrt{23}}{6}\right\}$

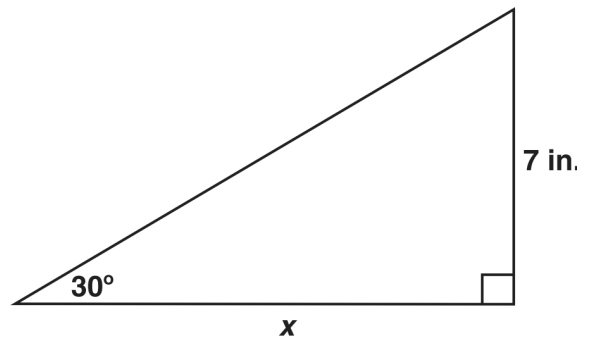
10. Study the triangle below.



What is the cosine of $\angle X$?

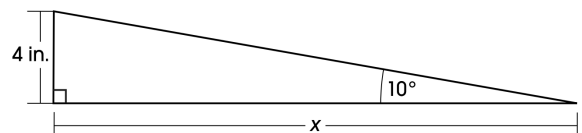
- A. $\frac{5}{6}$ B. $\frac{\sqrt{11}}{6}$ C. $\frac{\sqrt{11}}{5}$ D. $\frac{6}{5}$

11. What is the value of x , in inches?



- A. $7\sqrt{3}$ B. 14 C. $14\sqrt{3}$ D. 21

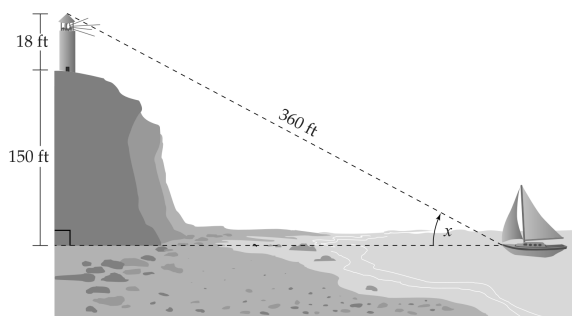
12. A ramp is being built next to a 4-inch-high sidewalk, as shown in the diagram below.



Which trigonometric relationship could be used to find the value of x ?

- A. $\cos 10^\circ = \frac{4}{x}$ B. $\cos 10^\circ = \frac{x}{4}$
 C. $\tan 10^\circ = \frac{4}{x}$ D. $\tan 10^\circ = \frac{x}{4}$

13. A lighthouse, which is 18 feet high, stands on a cliff that is 150 feet above sea level. The distance from the top of the lighthouse to a sailboat on the ocean is 360 feet.

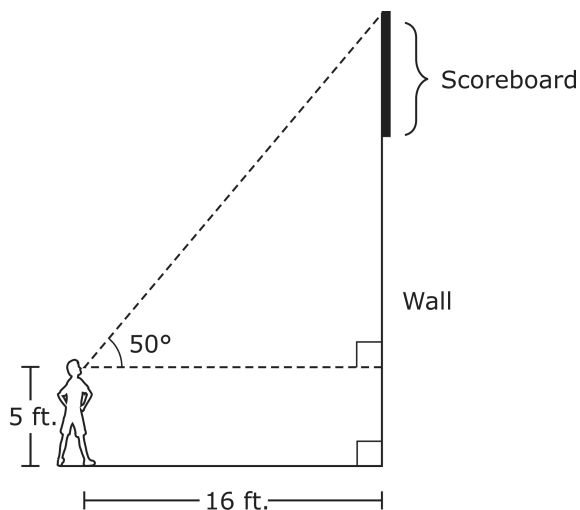


Note: The figure is not drawn to scale.

What is the angle of elevation (x) from the sailboat to the top of the lighthouse? Round the answer to the nearest degree.

- A. 25° B. 28° C. 62° D. 65°

- 14.



	sin	cos	tan
50°	0.766	0.643	1.192

Latisha stands 16 feet from a wall where a scoreboard hangs. From 5 feet above the floor, the angle of elevation to the top of the scoreboard is 50° . To the nearest tenth of a foot, how far above the floor is the top of the scoreboard?

- A. 15.3 feet B. 17.3 feet
C. 19.1 feet D. 24.1 feet

15. Which pair of events is dependent?
- A. flipping a coin, then flip it again
B. rolling a fair cube, then rolling it again
C. spinning the arrow of a spinner, then rolling a fair cube
D. removing a card from a deck, then removing another one
16. Which of the following is an example of independent events?
- A. flipping a fair coin and rolling a six-sided number cube
B. selecting the order in which one picture will be taken of each of four friends by drawing their names out of a hat
C. selecting the order in which each member of a history class will present a speech to the rest of the class
D. selecting two different-flavored pieces of candy one piece at a time, from a bag containing four different flavors of candy
17. You are flipping three coins: a nickel, a dime, and a quarter. What is the probability that you will get heads on two of them and a tail on the other.
- A. $\frac{1}{2}$ B. $\frac{3}{8}$ C. $\frac{1}{4}$ D. $\frac{1}{8}$
18. Each of the cards below is the same shape and size. The front of each card has a letter on it, and the back of each card is blank. Jack will put them all in a bag and then, without looking, take out one card.
- P A T R I O T S
- What is the probability that Jack will take out a card with the letter T on it?
- A. $\frac{1}{8}$ B. $\frac{1}{7}$ C. $\frac{1}{4}$ D. $\frac{1}{3}$
19. In a pantry there are 3 cans of green beans, 5 cans of corn, 2 cans of peas, and 2 cans of peaches. None of the cans have labels on them. If one of the cans is opened, what is the probability it will not be peaches?
- A. $\frac{1}{6}$ B. $\frac{1}{2}$ C. $\frac{2}{3}$ D. $\frac{5}{6}$

20. Rob has 3 red, 4 white, 2 blue, and 5 green T-shirts in his drawer. He picks a red shirt on Monday without looking. He notices a stain and puts the shirt in the wash. Without looking, Rob then picks another shirt from his drawer.

What is the probability he will pick a red shirt on his second try?

- A. $\frac{2}{13}$ B. $\frac{2}{14}$ C. $\frac{3}{14} \cdot \frac{2}{14}$ D. $\frac{3}{14} \cdot \frac{3}{14}$

21. Sarita flipped a fair coin and it landed showing heads 30 times out of 50. What is the theoretical probability of getting heads the next time?

- A. 20% B. 30% C. 50% D. 60%

22. Tara has a bag with 3 white marbles, 2 black marbles, and 5 gray marbles. She takes out two marbles without looking. What is the probability that the marbles are both white?

- A. $\frac{1}{15}$ B. $\frac{9}{100}$ C. $\frac{3}{5}$ D. $\frac{2}{9}$

23. A box contains 4 red pencils, 3 blue pencils, and 3 yellow pencils. What is the probability that a student randomly selects a blue pencil, keeps it, and then a second student randomly selects a yellow pencil?

- A. $\frac{1}{10}$ B. $\frac{3}{10}$ C. $\frac{6}{10}$ D. $\frac{9}{10}$

24. The sides of a six-sided number cube are labeled with the numbers 1 to 6.

A student rolls the number cube 3 times.

What is the probability of the number cube landing with 1 showing face up all 3 times?

- A. $\frac{1}{216}$ B. $\frac{1}{27}$ C. $\frac{1}{3}$

25. Matt has a bag containing 12 green marbles and 8 blue marbles. Without looking, he pulls out one marble and places it on a table. He then picks a second marble from the bag. What is the probability he will have 2 blue marbles?

- A. $\frac{8}{20} \cdot \frac{7}{19}$ B. $\frac{8}{20} \cdot \frac{7}{20}$ C. $\frac{1}{8} \cdot \frac{1}{7}$ D. $\frac{1}{8} \cdot \frac{1}{8}$

26. On a certain day the chance of rain is 80% in San Francisco and 30% in Sydney. Assume that the chance of rain in the two cities is independent. What is the probability that it will not rain in either city?

- A. 7% B. 14% C. 24% D. 50%

27. Which of the following pairs of events are dependent events?

- A. A coin is tossed 2 times. Event *A* is that the coin lands heads facing up on the first toss. Event *B* is that the coin lands heads facing up the second time.
- B. A marble is randomly selected out of a bag containing red, green, and blue marbles. Event *A* is selecting a blue marble first. Event *B* is selecting a blue marble on the second try after the first marble is returned to the bag.
- C. A thumbtack falls on the floor. Event *A* is that the tack lands with the point facing up. Event *B* is that if the tack falls again, it lands with the point facing down.
- D. Event *A* is that a red candy is randomly selected from a bag of different-colored candies. Event *B* is that the second candy randomly selected is also red.

Problem-Attic format version 4.4.315

© 2011–2017 EducAide Software
Licensed for use by Aubrey Parker
Terms of Use at www.problem-attic.com

MATH 2 EXAM REVIEW 4 5/9/2018

1.
Answer: A
2.
Answer: A
3.
Answer: B
4.
Answer: D
5.
Answer:
6.
Answer: D
7.
Answer: B
8.
Answer: D
9.
Answer: D
10.
Answer: A
11.
Answer: A
12.
Answer: C
13.
Answer:
14.
Answer: D
15.
Answer: D
16.
Answer: A
17.
Answer: B
18.
Answer: C
19.
Answer: D

20.
Answer: A
21.
Answer: C
22.
Answer: A
23.
Answer: A
24.
Answer: A
25.
Answer: A
26.
Answer: B
27.
Answer: D