

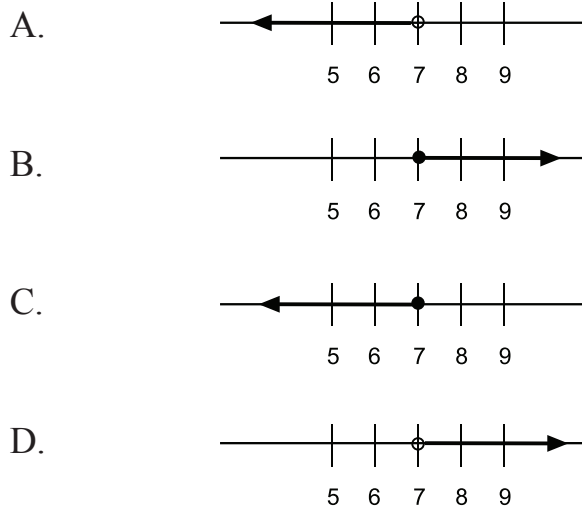


# Assessment Sampler

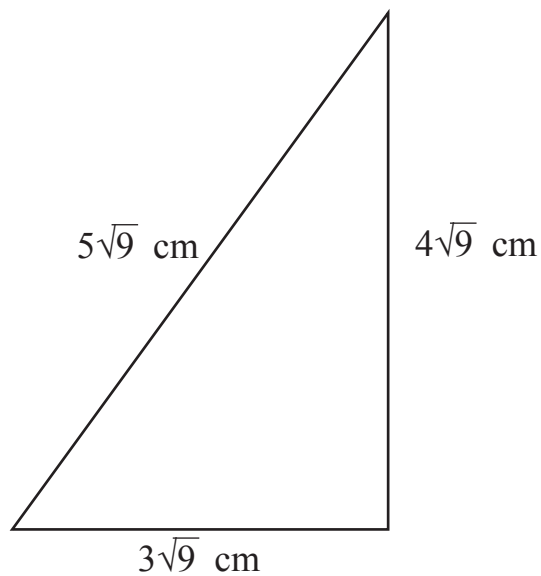
# Sample Questions

1. Which graph shows the solution, if  $x$  is a real number?

$$7x \geq 49$$



2. Simplify and calculate the perimeter of the following:



\_\_\_\_\_ cm

**3. Calculate:**

$$\frac{25}{8} \div \frac{5}{4}$$

A.  $3\frac{29}{32}$

B.  $\frac{12}{5}$

C.  $\frac{40}{100}$

D.  $2\frac{1}{2}$

**4. Calculate:**

$$3\frac{2}{5} \times 1\frac{1}{8}$$

A.  $4\frac{27}{40}$

B.  $3\frac{2}{40}$

C.  $3\frac{33}{40}$

D.  $4\frac{21}{40}$

5. Simplify:

$$\frac{4^6 \times 4^2}{4^3}$$

A.  $4^{-4}$

B.  $4^{11}$

C.  $4^5$

D.  $4^{-5}$

6. A rectangular deck is 11 m by 5 m. Calculate the length of the deck's diagonal.

A. 27.5 m

B. 16 m

C. 12.1 m

D. 55 m

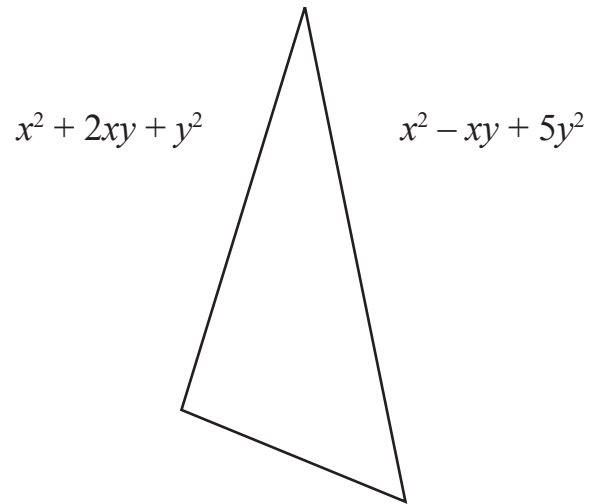
7. Lauren owns two electronics companies. The data below shows the number of units of each product that can be produced by each company for one week.

	Company 1	Company 2
Stereos	34	25
Cameras	16	28
MP3 Players	32	29

Lauren wants to increase productivity of entry 2,1 by 50%. What is the new total number of units in entry 2,1?

- A. 24
- B. 8
- C. 32
- D. 42

8. Consider the following triangle:



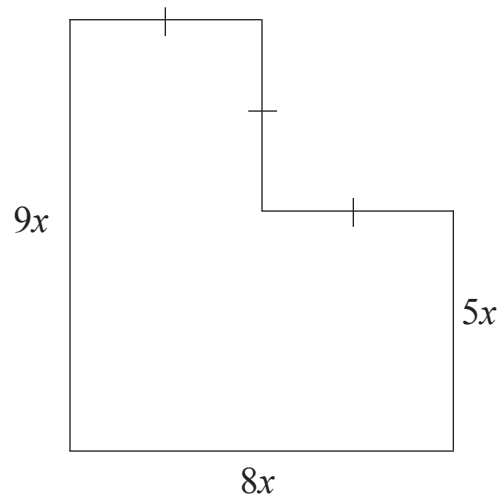
If the perimeter of the triangle is  $5x^2 + xy + 5y^2$ , find the missing side.

- A.  $3x^2 - y^2$
- B.  $2x^2 + xy + 6y^2$
- C.  $7x^2 + 2xy + 11y^2$
- D.  $-3x^2 + y^2$

9. Simplify. Express with positive exponent.

$$(x^9)^{-2} = \underline{\hspace{2cm}}.$$

10. Calculate the perimeter, when  $x = 5\text{cm}$ .



Answer: \_\_\_\_\_ cm.

11. Which equation represents a line with a y -intercept = 2, and a slope =  $-\frac{3}{2}$  ?

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

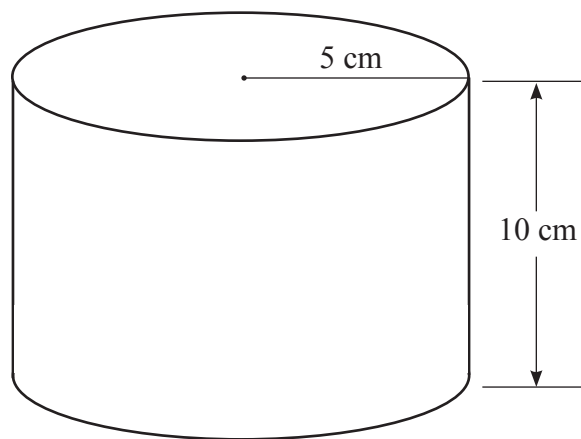
B.  $y = -\frac{3}{2}x + 2$

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

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

12. If together a pair of jeans and a sweater cost \$85, and if the pair of jeans costs \$25 more than the sweater, then the pair of jeans costs \$ \_\_\_\_\_.

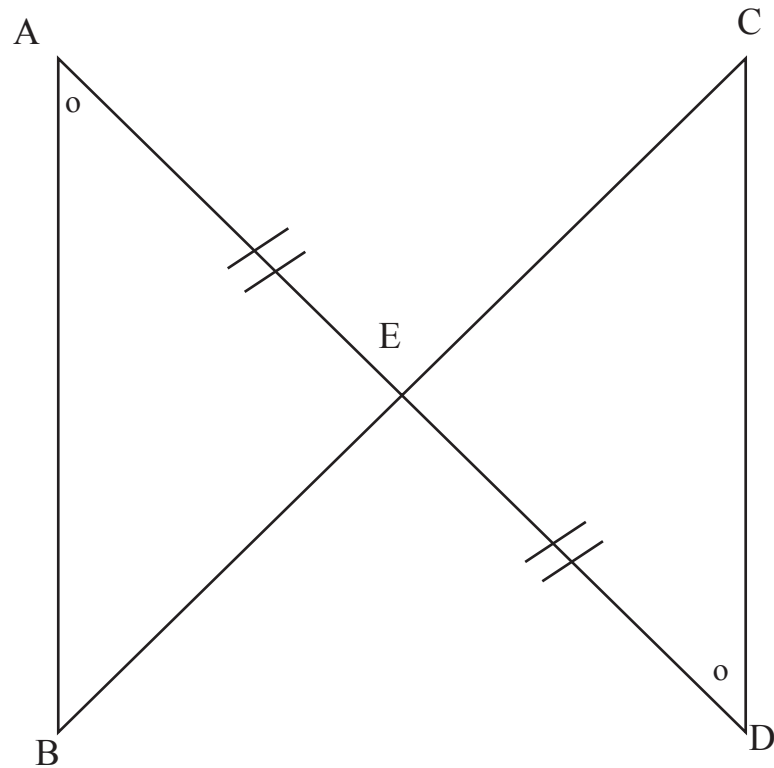
13. What is the volume of the following cylinder?  
The volume of a cylinder:  $V = \pi r^2 h$  where  $\pi = 3.14$



- A. 785 cm<sup>3</sup>
- B. 314 cm<sup>3</sup>
- C. 157 cm<sup>3</sup>
- D. 1570 cm<sup>3</sup>

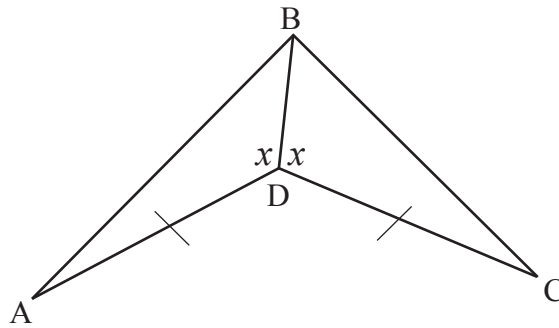


14. What case makes triangle AEB congruent to triangle DEC?



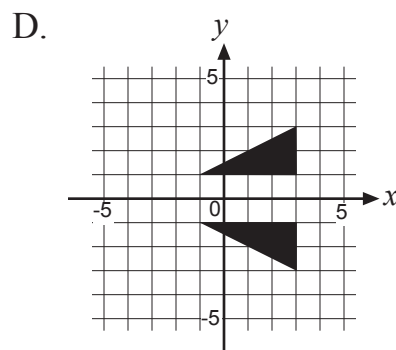
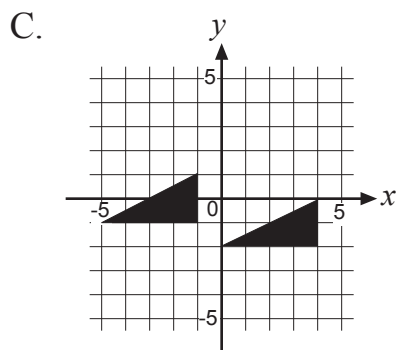
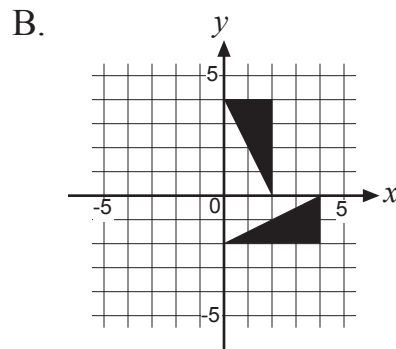
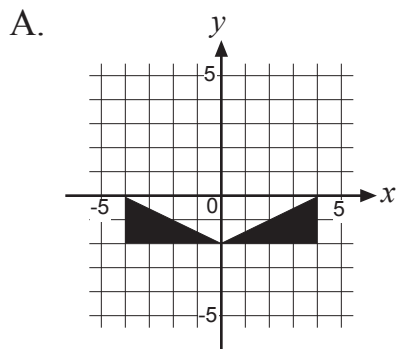
- A. ASA
- B. SSS
- C. SAS
- D. AAS

15. If the triangle ADB is congruent to triangle CDB, which corresponding sides are equal?

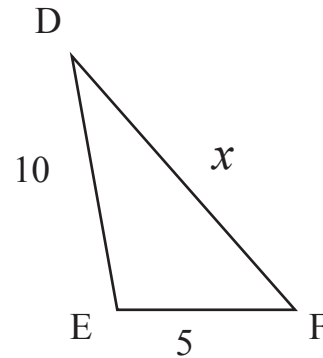
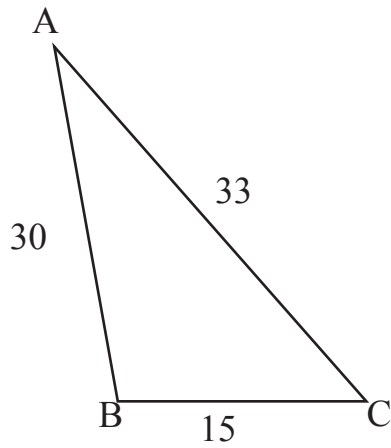


- A.  $\overline{AB} = \overline{CD}$
- B.  $\overline{AD} = \overline{BC}$
- C.  $\overline{BD} = \overline{BC}$
- D.  $\overline{AB} = \overline{CB}$

16. Which graph represents a reflection in the  $x$  axis?

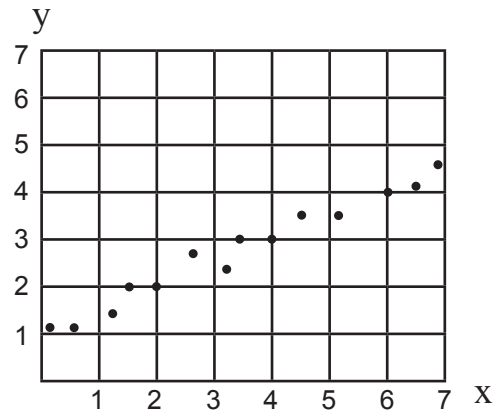


17. Consider the following two triangles:



If triangle ABC is similar ( $\sim$ ) to triangle DEF, then  $x$  is equal to \_\_\_\_\_.

18. Which equation best represents the line of best fit that would apply to this scatterplot?

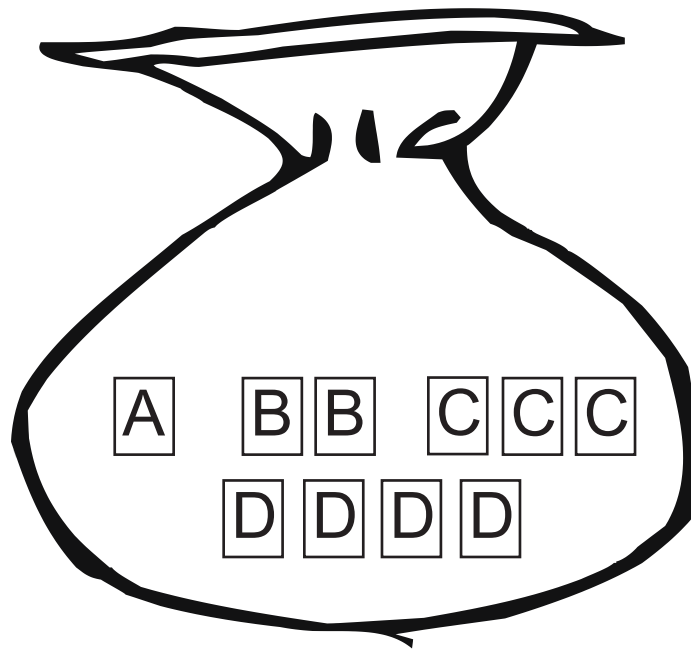
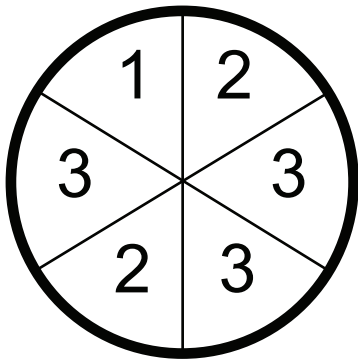


- A.  $y = \frac{1}{4}x + 1$   
 B.  $y = \frac{1}{2}x + 1$   
 C.  $y = x + 1$   
 D.  $y = 2x + 1$

19. When tossing a coin, which of the following number of coin tosses would best allow experimental probability to approach theoretical probability?

- A. 10
- B. 100
- C. 1 000
- D. 10 000

20. Each student is asked to pick a card from a bag, spin a spinner, and toss a coin.



The probability of D and 2 and a head is \_\_\_\_\_.

**These questions were released from the  
Intermediate Mathematics Assessment 2007.**

