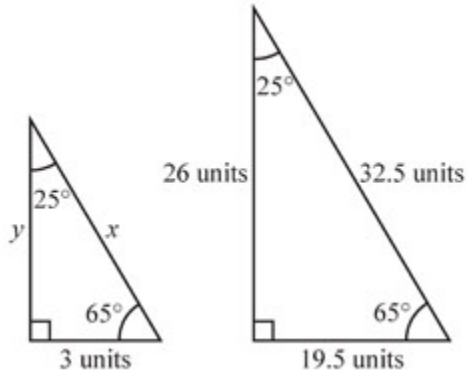


- 1) Points $C(4.2, -1.9)$ and $D(-3.6, -6.7)$ are the endpoints of line segment CD. Which of the following expressions represents the length of line segment CD?
- (A) $\sqrt{(4.2 - 3.6)^2 + ((-1.9) - 6.7)^2}$
- (B) $\sqrt{(4.2 - (-1.9))^2 + ((-3.6) - (-6.7))^2}$
- (C) $\sqrt{(4.2 - (-6.7))^2 + ((-1.9) - (-3.6))^2}$
- (D) $\sqrt{(4.2 - (-3.6))^2 + ((-1.9) - (-6.7))^2}$
- 2) To the nearest tenth, the vertical distance between the point $(-5, -4)$ and the line $2x + 3y + 15 = 0$ is
- (A) 1.0 units
- (B) 2.3 units
- (C) 3.3 units
- (D) 5.7 units
- 3) If the coordinates of the vertices of the quadrilateral ABCD are $A(-2, -4)$, $B(1, 5)$, $C(10, 8)$, and $D(7, -1)$, then the quadrilateral ABCD is a
- (A) square
- (B) rhombus
- (C) rectangle
- (D) trapezium

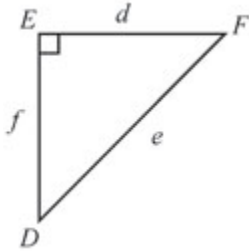
4)



What is the length of side x ?

- (A) 10.8 units
- (B) 6.5 units
- (C) 5.0 units
- (D) 4.0 units

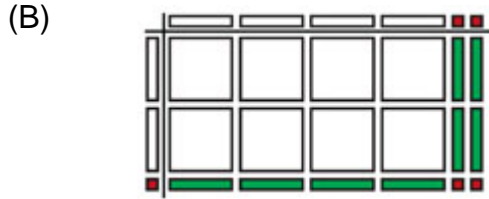
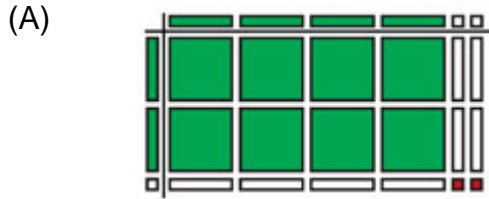
5)



The sine of $\angle D$ can be expressed as

- (A) $\frac{d}{e}$
- (B) $\frac{d}{f}$
- (C) $\frac{e}{d}$
- (D) $\frac{e}{f}$

6) Which of the following diagrams represents the multiplication of $(2 - x)(4 - 2x)$ using algebra tiles?



7) When the expression $x^2 + 3x - 40$ is factored, the result is

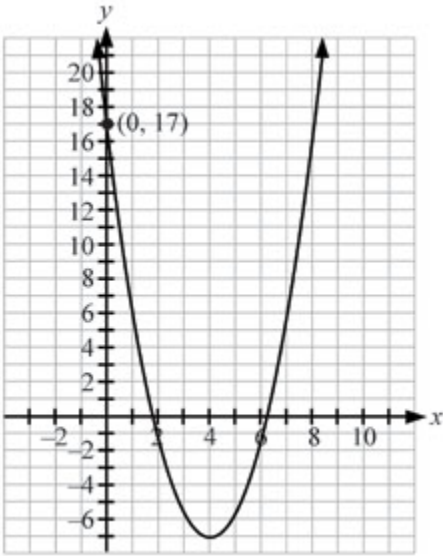
(A) $(x + 8)(x - 5)$

(B) $(x - 8)(x + 5)$

(C) $(x + 8)(x + 5)$

(D) $(x - 8)(x - 5)$

- 8) The partial graph of a particular quadratic relation is shown.



If the equation of the parabola shown is $y = a(x - 4)^2 - 7$, $a \in \mathbb{R}$, then the value of a to the nearest tenth is .

- 9) Which of the following expressions is equivalent to $\frac{1}{2 \times 2 \times 2 \times 2}$?
- (A) 16^{-2}
 - (B) 2^{-4}
 - (C) 16^0
 - (D) 2^4

- 10) A rock is thrown from a 100 metre high cliff. The path the rock travels can be modelled by the quadratic relation $y = -5x^2 + 5x + 100$, $x \geq 0$, where y is the height in metres and x is the time in seconds. How long does it take for the rock to reach the ground?
- (A) 3 s
 - (B) 4 s
 - (C) 5 s
 - (D) 6 s

Date: _____

Question	Answer
1	D
2	B
3	B
4	C
5	A
6	D
7	A
8	1.5
9	B
10	C