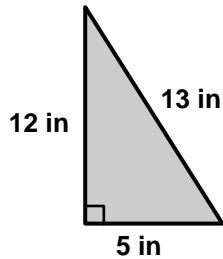# 7th Grade Geometry Readiness: Winter Screener
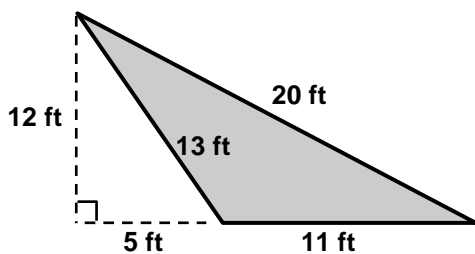
Questions 1-3: Select the correct number and label for each question.

1. Find the area of the triangle. *(Note: The figure is not drawn to scale.)*
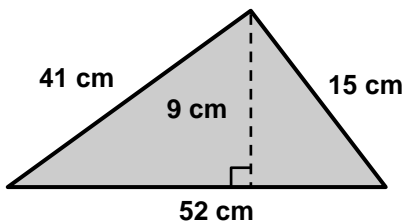
13 in
12 in
5 in

○ 32.5   ○ 30   ○ 60   ○ 15

○ in   ○ in³   ○ in²

2. Find the area of the shaded triangle. *(Note: The figure is not drawn to scale.)*

12 ft
20 ft
13 ft
5 ft   11 ft

○ 104   ○ 66   ○ 110   ○ 44

○ ft³   ○ ft²   ○ ft

3. Find the area of the shaded triangle. *(Note: The figure is not drawn to scale.)*

41 cm   15 cm
9 cm
52 cm

○ 468   ○ 390   ○ 108   ○ 234

○ cm²   ○ cm   ○ cm³

STOP

Please stop, put your pencil down and wait for the next directions.
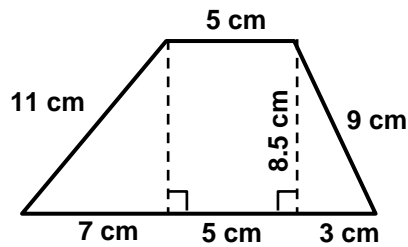
Number Correct = _____

Questions 4-6: Select the correct number and label for each question.

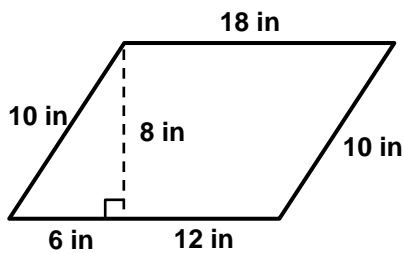**4.** Find the area of the shaded polygon. *(Note: The figure is not drawn to scale.)*

← 1 Square Foot
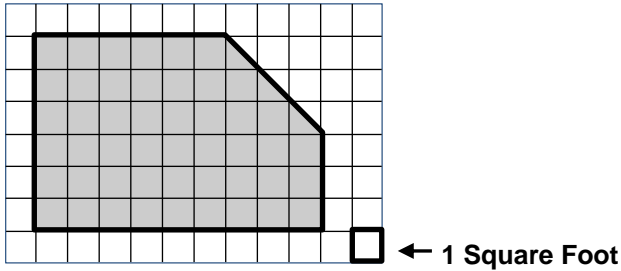
○ 40.5   ○ 45   ○ **49.5**   ○ 54

○ ft³   ○ **ft²**   ○ ft

5. Find the area of the trapezoid. *(Note: The figure is not drawn to scale.)*

5 cm

11 cm   8.5 cm   9 cm

7 cm   5 cm   3 cm

○ 45   ○ **85**   ○ 90   ○ 110

○ **cm²**   ○ cm   ○ cm³

6. Find the area of the parallelogram. *(Note: The figure is not drawn to scale.)*

18 in

10 in   8 in   10 in
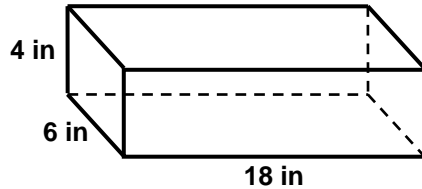
6 in   12 in

○ 72   ○ 180   ○ 56   ○ **144**

○ in   ○ **in²**   ○ in³

STOP

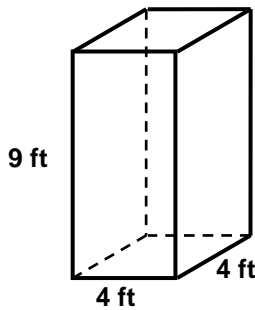Please stop, put your pencil down and wait for the next directions.

Questions 7-9: Select the correct number and label for each question.

7. What is the maximum number of 1-inch cubes ⬚ that can fit inside the right prism?
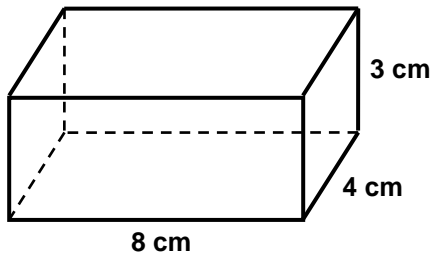*(Note: The figure is not drawn to scale.)*

4 in

6 in

18 in

○ 432 cubes ○ 408 cubes ○ 360 cubes ○ 192 cubes

8. Find the volume of the right prism. *(Note: The figure is not drawn to scale.)*

9 ft

4 ft

4 ft

○ 176 ○ 144 ○ 104 ○ 17

○ ft³ ○ ft² ○ ft

9. Find the volume of the right prism. *(Note: The figure is not drawn to scale.)*

3 cm

4 cm
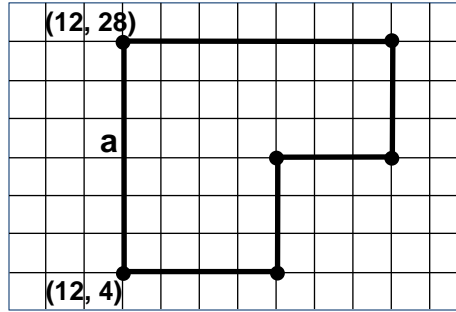
8 cm

○ 72 ○ 112 ○ 176 ○ 96

○ cm² ○ cm ○ cm³

STOP

Please stop, put your pencil down and wait for the next directions.

Questions 10-12: Select the correct answer for each question.
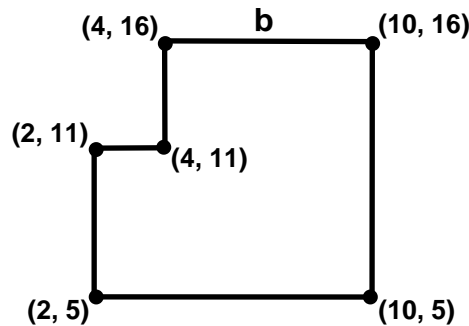
10. Find the length of side a.

(12, 28)

a

(12, 4)

○ 6   ○ 24   ○ 28   ○ 32

11. Find the length of side b.

(4, 16)   b   (10, 16)
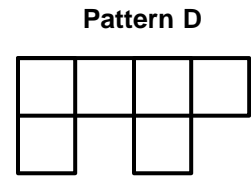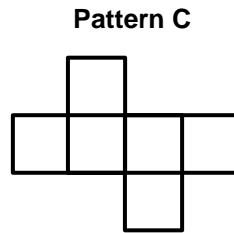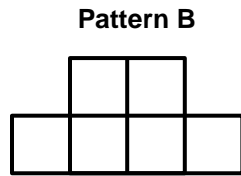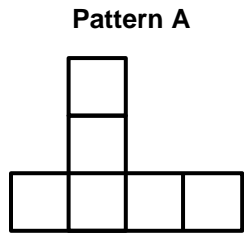
(2, 11)

(4, 11)

(2, 5)   (10, 5)

○ 4   ○ 6   ○ 10   ○ 16

12. Find the length of side c.

(6, 25)   b   (19, 25)

c

d   (30, 18)

(19, 18)

a

e

(6, 2)   (30, 2)

f

○ 6   ○ 7   ○ 17   ○ 18

STOP

Please stop, put your pencil down and wait for the next directions.

Number Correct = _____

7th Grade Geometry Readiness: Winter

(continued)
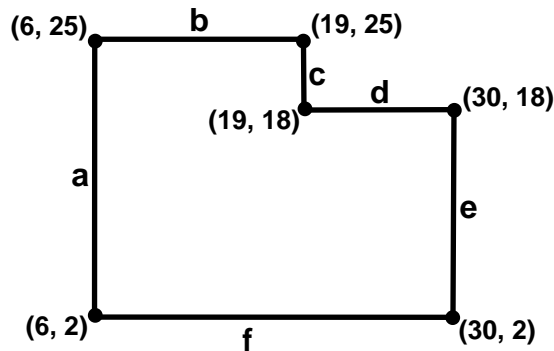
Questions 13-15: Select the correct answer for each question.

13. Which pattern could be folded into a cube?

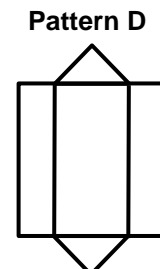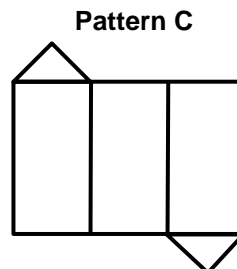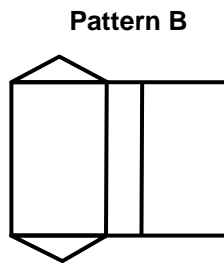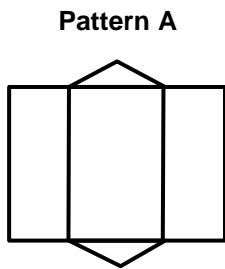| **Pattern A** | **Pattern B** | **Pattern C** | **Pattern D** |

○ A   ○ B   ○ C   ○ D

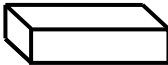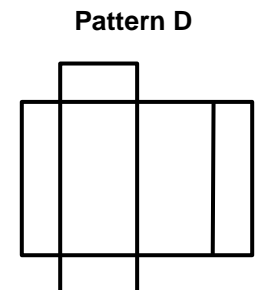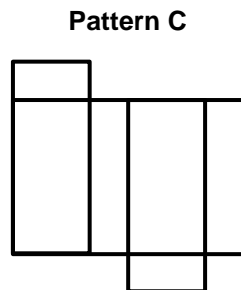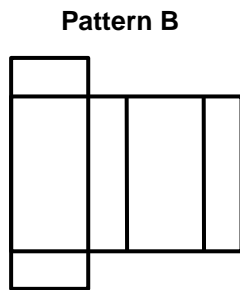**14.** Which patterns could be folded into a right triangular prism?

| **Pattern A** | **Pattern B** | **Pattern C** | **Pattern D** |

○ Pattern A   ○ Pattern B   ○ Pattern C   ○ Pattern D

15. Which pattern could **not** fold into a right rectangular prism?

| **Pattern A** | **Pattern B** | **Pattern C** | **Pattern D** |

○ Pattern A   ○ Pattern B   ○ Pattern C   ○ Pattern D

STOP

Please stop, put your pencil down and wait for the next directions.

Number Correct = _____