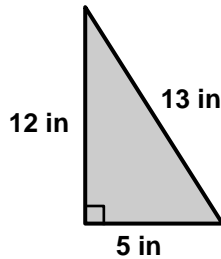# 7th Grade Geometry Readiness: Winter Screener
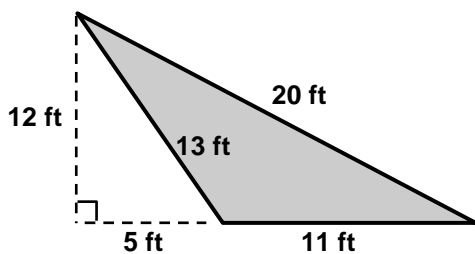
Questions 1-3: Select the correct number and label for each question.

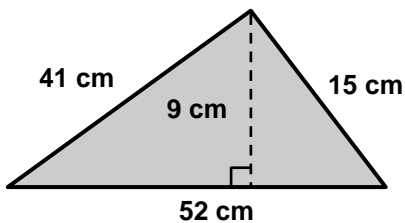**1.** Find the area of the triangle. *(Note: The figure is not drawn to scale.)*

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

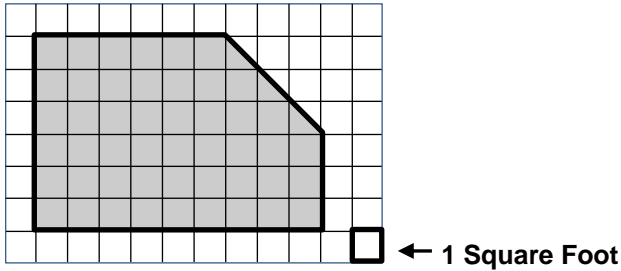**3.** Find the area of the shaded triangle. *(Note: The figure is not drawn to scale.)*

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.
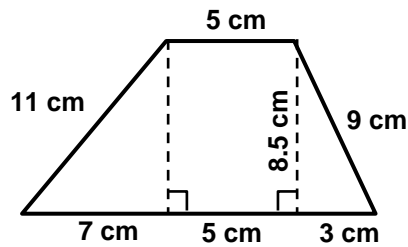
Number Correct = _____

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

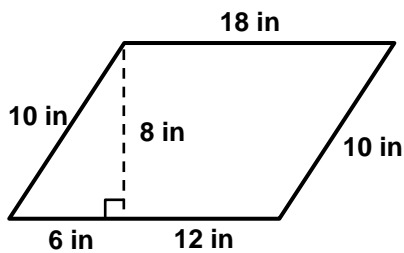**4.** Find the area of the shaded polygon. *(Note: The figure is not drawn to scale.)*

← **1 Square Foot**

- ○ 40.5
- ○ 45
- ○ 49.5
- ○ 54

- ○ ft^3
- ○ ft^2
- ○ 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

- ○ cm^2
- ○ cm
- ○ cm^3

---

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
- ○ in^2
- ○ in^3

STOP

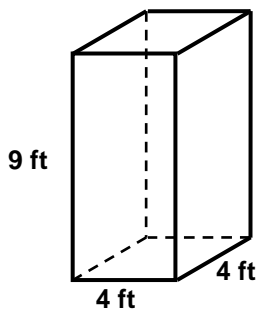Please stop, put your pencil down and wait for the next directions.

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?
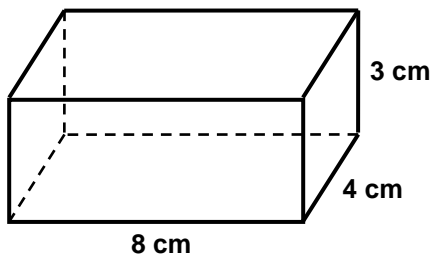*(Note: The figure is not drawn to scale.)*

4 in
6 in
18 in
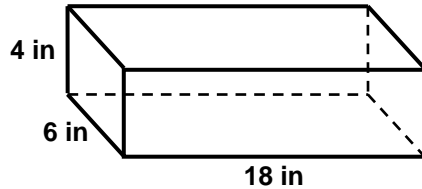
○ 432 cubes ○ 408 cubes ○ 360 cubes ○ 192 cubes

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.)*

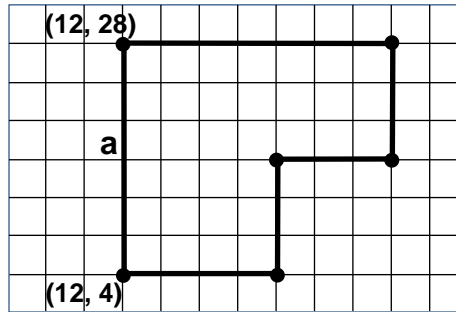**3 cm**
4 cm
8 cm

○ 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.
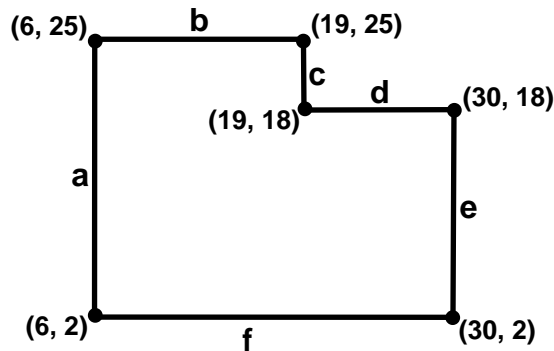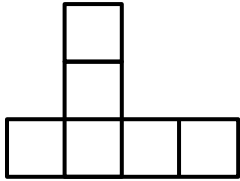
10. Find the length of side a.

(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)
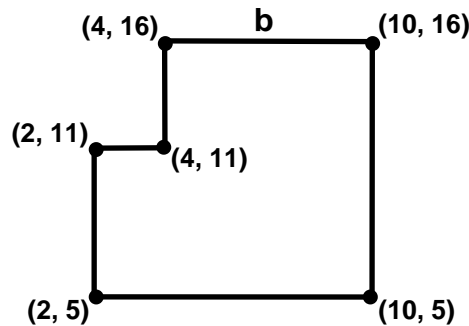
○ 4   ○ 6   ○ 10   ○ 16

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 = _____

Questions 13-15: Select the correct answer for each question.
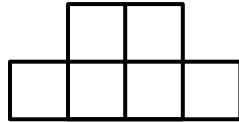
13. Which pattern can be folded into a cube?
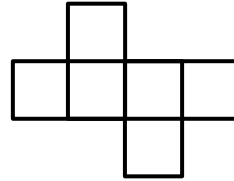
| Pattern A | Pattern B | Pattern C | Pattern D |
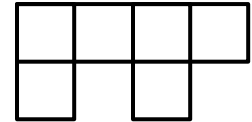
○ A   ○ B   ○ C   ○ D

14. Which pattern can be folded into a right triangular prism?

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

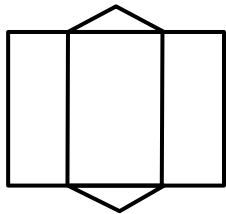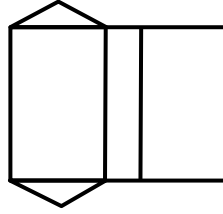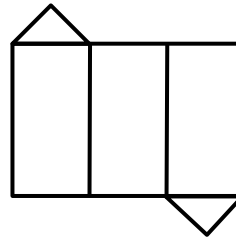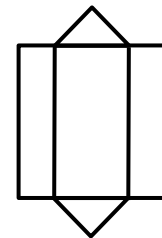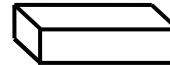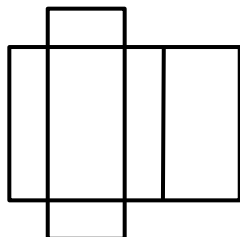○ Pattern A   ○ Pattern B   ○ Pattern C   ○ Pattern D
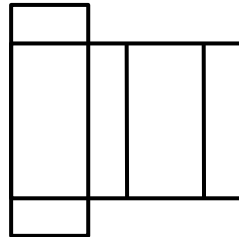
15. Which pattern can **not** fold into a right rectangular prism?
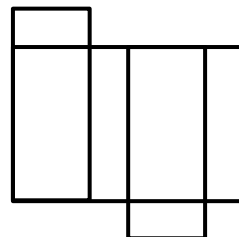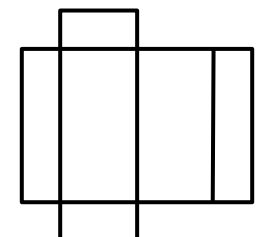
| Pattern A | Pattern B | Pattern C | Pattern D |

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

STOP

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

Number Correct = _____