Name _____ Date _____

8th Grade Geometry Readiness: Winter Screener

Questions 1-3: Select the correct answer for each question.

1. Figure B is a scaled drawing of figure A with a scale factor of 4. Find the width for figure B.
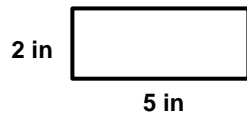
Figure A

Figure B

2 in

Width

5 in

○   10 in   ○   9 in   ○   8 in   ○   20 in

2. Figure D is a scaled drawing of figure C. Find the missing length in figure D.

Figure C

2 in   4 in

5 in

Figure D

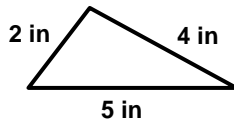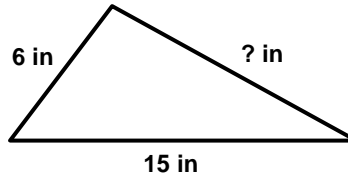6 in   ? in

15 in

○   2 in   ○   4 in   ○   10 in   ○   12 in

3. Figure F is a scaled drawing of figure E with a scale factor of 3. If the area of Figure E is 6 ft^2, then what is the area of figure F?

Figure F

Figure E

3 ft

1 ft

Area = 6 ft^2

Area = ? ft^2

○   9 ft^2 ○   54 ft^2 ○   3 ft^2 ○   18 ft^2

STOP

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

Questions 4-6: Select the correct answer for each question.

4. Which set of dimensions can be 3 sides of a triangle?

○ 4 in, 6 in, and 10 in

○ 4 in, 6 in, and 9 in

○ 4 in, 5 in, and 9 in

○ 4 in, 7 in, and 12 in

5. Two dimensions of a triangle are 3 in and 8 in. Select the length that is possible for the third side of the triangle?

○ 4 in

○ 11 in

○ 5 in

○ 10 in

6. Two angle measures of a triangle are 45 and 80 degrees. Select the measurement that is possible for the third angle of the triangle?

○ 35 degrees
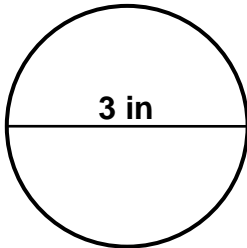
○ 45 degrees

○ 55 degrees

○ 100 degrees

(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.

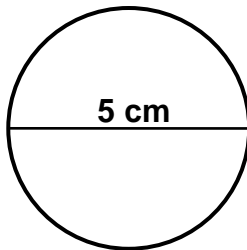**7.** Find the circumference of the circle. *(Use 3.14 for π.)*
(Note: The figure is not drawn to scale.)

3 in

○ 7.07   ○ 18.84   ○ 9.42   ○ 28.26

○ in   ○ in²   ○ in³

8. Find the area of the circle. *(Use 3.14 for π.)*
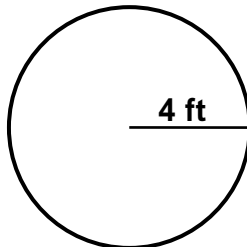*(Note: The figure is not drawn to scale.)*

5 cm

○ 15.7   ○ 19.63   ○ 15.2   ○ 31.4

○ cm²   ○ cm   ○ cm³

9. Find the area of the circle. *(Use 3.14 for π.)*
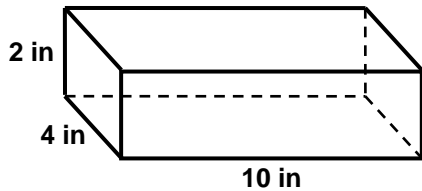*(Note: The figure is not drawn to scale.)*

4 ft

○ 200.96   ○ 25.12   ○ 100.48   ○ 50.24

○ ft³   ○ ft²   ○ ft

STOP

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

Questions 10-12: Select the correct number and label for each question.

10. Find the surface area of the right prism. *(Note: The figure is not drawn to scale.)*
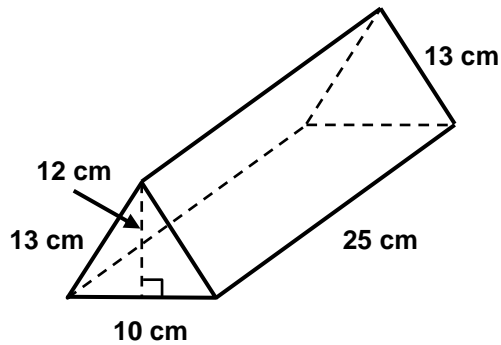
2 in
4 in
10 in

○ **136** ○ 80 ○ 128 ○ 120

○ in ○ **in²** ○ in³

11. Find the surface area of the right prism. *(Note: The figure is not drawn to scale.)*

13 cm
12 cm
13 cm
25 cm
10 cm

○ 900 ○ 965 ○ 3,250 ○ **1,030**

○ **cm²** ○ cm ○ cm³

12. Find the surface area of the right prism. *(Note: The figure is not drawn to scale.)*

12 ft
8 ft
8 ft
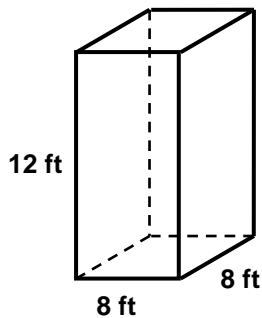
○ 768 ○ **512** ○ 448 ○ 384

○ ft³ ○ **ft²** ○ ft

STOP

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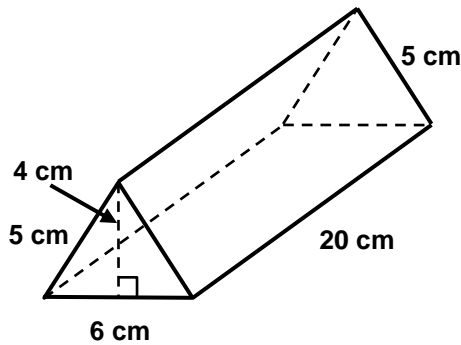
Number Correct = _____

Questions 13-15: Select the correct number and label for each question.

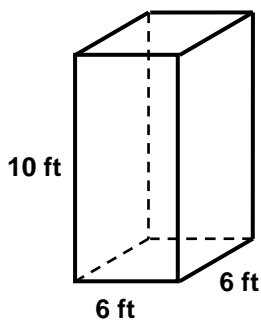**13.** Find the volume of the right prism. *(Note: The figure is not drawn to scale.)*

3 in
5 in
12 in
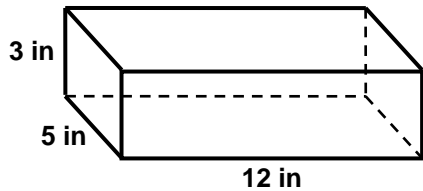
○ 222   ○ **180**   ○ 207   ○ 192

○ in   ○ in²   ○ **in³**

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

5 cm
4 cm
5 cm
20 cm
6 cm

○ 332   ○ **240**   ○ 320   ○ 344

○ cm²   ○ cm   ○ **cm³**

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

10 ft
6 ft
6 ft

○ 240   ○ 312   ○ 276   ○ **360**

○ **ft³**   ○ ft²   ○ ft

STOP

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