

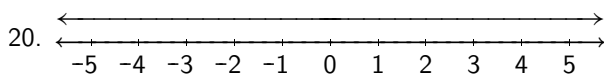


2007 OCTM CONTEST

ANSWER KEY

Answers for questions 1–20 must be exact
and in simplest form.

- 2005
- A) F B) F C) T
- side
- 2 yd 1 ft 9 in
- AAA
- 55%
- 876,593
- C
- 130
- 1
- $\frac{a}{b} = \frac{17}{20}$
- $b = -1, c = -12, d = 0$
- $-\frac{4\sqrt{7}}{7}$ or $-\frac{4}{\sqrt{7}}$
- A
- XVII
- $3 + 2\sqrt{3}$
- 10,200_{three}
- 1.5 or $\frac{3}{2}$ sq. units
- 40



Answers for questions 21–40 may be exact
OR correctly rounded to four decimal places.

- 29.5%
- 3.4286 or $3\frac{3}{7}$ or $\frac{24}{7}$
- $\frac{1}{2}$
- D and F
- $\frac{a}{b} = \frac{12}{17}$
- 4.4641 or $1 + 2\sqrt{3}$ or $1 + \sqrt{12}$
- 5040 or $7!$ or $\frac{8!}{2!2!2!}$
- 2.3333 or $2\frac{1}{3}$ or $\frac{7}{3}$ or $2.\bar{3}$
- E
- 22.5 or $22\frac{1}{2}$ or $\frac{45}{2}$
- 10
- 24 sq. units
- \$12.10 per shirt
- 1053
- 3 hr 59 min
- 1.7889 or $\frac{4\sqrt{5}}{5}$ or $\frac{4}{\sqrt{5}}$
- 12.1655 or $2\sqrt{37}$ or $\sqrt{148}$ inches
- slide rule
- 5.3852 or $\sqrt{29}$
- 126 mph